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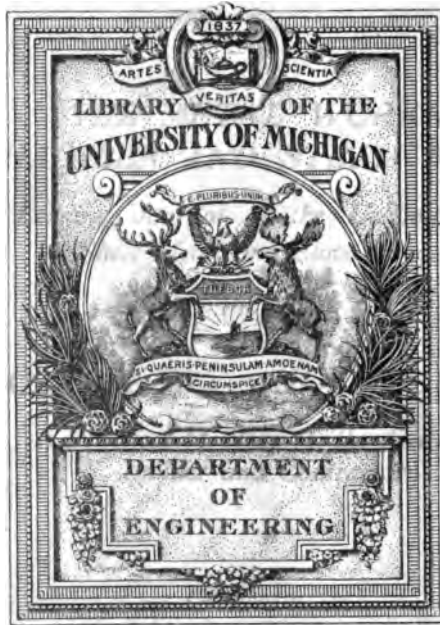
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THE IRON AGE DIRECTORY

1906

THE IRON AGE

A Review of the Hardware Iron Machinery and



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NEW YORK, . . . 14 & 16 Park Place
PHILADELPHIA, Real Estate Trust Building, Broad and
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CHICAGO, Fisher Building, Dearborn and Van Buren Sts.
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CLEVELAND, . . . The Cuyahoga, 311 Superior St.

THE IRON AGE DIRECTORY

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THE IRON AGE, THE METAL WORKER
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New York, May, 1906

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ANNOUNCEMENT.

IN presenting to our subscribers the tenth annual edition of THE IRON AGE DIRECTORY we take pleasure in calling attention to its increasing value. The contents of this edition are considerably greater than any yet issued. While the publication has been found useful in previous years, its scope is now so much larger that it cannot fail to be more highly appreciated as an essential part of the requirements of very many counting rooms.

For 50 years THE IRON AGE has been the recognized organ of the American Metal Trades and Industries, in whose development it has rendered important service. No other journal of its class has been so liberal and enterprising in securing and publishing information relative to the improvements and inventions which have distinguished the growth and progress of American industrial activity. Nor has any other publication in the metal trades given every week such careful and conscientious attention to the varying phases of the markets.

The reading columns have not constituted the sole feature of value to our subscribers, but the advertising pages have also furnished a highly appreciated means of communication between seller and buyer which has steadily gained in usefulness as the number and importance of the advertisements have increased and the circulation and influence of the paper have grown.

THE IRON AGE also stands unique in the extent and character of its subscribers. They comprise the greatest manufacturers in the iron, steel, machinery and hardware

trades, the leading wholesale dealers in hardware and machinery, the purchasing agents of nearly every American railroad system of any importance, and retail hardware and metal merchants in every nook and corner of the United States. No other journal in the world has an equal clientage among the buyers in the trades which it represents. In a large proportion of the houses in its line, both large and small, no important purchase is made without reference to it. Its paid foreign circulation is also larger and of a higher character than that of many export journals, so that its advertising pages are found particularly useful to those who are seeking foreign outlets for their products.

The preparation of this book has involved much care and labor and no inconsiderable expense. A copy will be sent to each subscriber, in foreign countries as well as in America. We present it to them in the belief that it will deserve a place in every well organized office and will be found of constant use. Most of the puzzling questions continually arising in every mercantile and manufacturing establishment as to who makes some certain article may be readily answered by reference to THE IRON AGE DIRECTORY.

The Iron Age Directory

Abrasives—

Pike Mfg. Co., Pike, N. H.

Accumulators, Hydraulic—

Aiton Machine Co., 126 Liberty St., N. Y.
Alliance Machine Co., Alliance, O.
Birmingham Iron Foundry, Derby, Ct.
Chambersburg Engineering Co., Chambersburg, Pa.

Chas. F. Elmes Engineering Works, Cor. Morgan and Fulton Sts., Chicago, Ill.
Mesta Machine Co., Pittsburgh, Pa.
Morgan Construction Co., Worcester, Mass.

Niles-Bement-Pond Co., 111 Broadway, New York.

Penn Engineering Works, New Castle, Pa.
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.
Power Specialty Co., 111 Broadway, New York.

Taylor-Wilson Mfg. Co., Allegheny, Pa.
United Engineering & Foundry Co., Pittsburgh, Pa.

Waterbury Farrel Foundry & Mch. Co., Waterbury, Ct.

Watson-Stillman Co., 46 Dey St., New York.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Stiles-Morse Co., Western Union Building, Chicago, Ill.

Accumulators, Steam—
Watson-Stillman Co., 46 Dey St., New York.

Acid Phosphate—
Illinois Zinc Co., Peru, Ill.

Acid, Sulphuric—
Illinois Zinc Co., Peru, Ill.

Matthiessen & Hegeler Zinc Co., La Salle, Ill.

Adding, Computing and Reckoning Machines—

Felix Hamburger, 90 William St., New York.

Keuffel & Esser Co., 127 Fulton St., New York.

Adjustable Blocking—
(See Blocking, Adjustable.)

Adjusters, Blind—
Columbian Hardware Co., Cleveland, O.

H. B. Ives Co., New Haven, Ct.
Millers Falls Co., 28 Warren St., N. Y.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Wire Goods Co., Worcester, Mass.

Adjusters, Casement—
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Adjusters, Hammock, Rope and Hitching Strap—

Covert Mfg. Co., Troy, N. Y.

Adjusters, Lamp Cord—
E. B. Estes & Sons, 45-47 John St., N. Y.

Adjusters, Window Stop—
H. B. Ives Co., New Haven, Ct.

Advertising Literature—
(See Commercial Literature.)

Advertising Novelties—
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Fanner Mfg. Co., Cleveland, O.

Advertising Writer—
Francis I. Maule, 402 Sansom St., Philadelphia, Pa.

Adzes—
Hubbard & Co., Pittsburgh, Pa.

National Cutlery Co., Detroit, Mich.
L. & I. J. White Co., Buffalo, N. Y.

Adzes, Ice—
(See Ice Harvesting Tools.)

Agents, Bicycle Material, &c.—

John S. Leng's Son & Co., 33 Murray St., New York.

Agents, Bicycle Sundries—
John H. Graham & Co., 113 Chambers St., New York.

John S. Leng's Son & Co., 33 Murray St., New York.

Agents, Hardware and Kindred Goods—

Burditt & Williams, Boston, Mass.

John Chatillon & Sons, 85 Cliff St., N. Y.

Dame, Stoddard & Co., Boston, Mass.

Fairbanks Co., 416 Broome St., New York.

Alfred Field & Co., 33 Chambers St., New York.

Lee G. Gilbert & Co., Los Angeles, Cal.

R. T. Goode, 83 Lake St., Chicago, Ill.

John H. Graham & Co., 113 Chambers St., New York.

John M. Hart Co., Ashland Block, Chicago, Ill.

Charles Millar & Son Co., Utica, N. Y.

Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.

Tower & Lyon Co., 95 Chambers St., New York.

U. J. Ulery Co., 9 Warren St., New York.

Wiebusch & Hilger, 9-15 Murray St., N. Y.

Agents Steam Specialties (Air, Oil, Water and Gas Goods)—

Franklin Williams, 41 Cortlandt St., New York.

Agricultural Bolts, Chains, Shapes—
(See Bolts, Chains, Shapes.)

Agricultural Implements—
Bateman Mfg. Co., Grenloch, N. J.

Cutaway Harrow Co., Higanum, Ct.

Kilburn & Bishop Co., New Haven, Ct.

Long & Allstatter Co., Hamilton, O.

J. Thompson & Sons Mfg. Co., Beloit, Wis.

Whitman & Barnes Mfg. Co., Chicago.

Agricultural Machinery—

Birmingham Iron Foundry, Derby, Ct.

Buffalo Forge Co., Buffalo, N. Y.

Ney Mfg. Co., Canton, O.

Air Chambers, Seamless

Copper—

Naugatuck Mfg. Co., Naugatuck, Ct.

Air Gauges, Receivers.

Tanks—

(See Gauges, Receivers, Tanks.)

Alarm Whistles—

(See Whistles, Alarm.)

Alarms, Electric, Burglar—

W. R. Ostrander & Co., 22 Deey St., N. Y.

Alarms, High and Low Water—

Lunkenheimer Co., Cincinnati, O.

Alloys, Gold and Silver—

Riverside Metal Co., Riverside, N. J.

Alloys, Nickel—

C. W. Leavitt & Co., 229 Broadway, New York.

Orford Copper Co., 43 Exchange Pl., N. Y.

Altar Bells—

(See Bells, Altar and Lodge.)

Aluminum—

Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

C. W. Leavitt & Co., 229 Broadway, New York.

Pittsburgh Reduction Co., Pittsburgh, Pa.

Scovill Mfg. Co., Waterbury, Ct.

Aluminum Bars, Castings, &c.—

(See Bars, Castings, &c.)

Aluminum, Bronze—

Ohio Brass Co., Mansfield, O.

Aluminum, Perforated Sheet—

Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.

Chas. Mundt & Sons, 441 Pearl St., N. Y.

Ammeters—

Bristol Co., Waterbury, Ct.

General Electric Co., Schenectady, N. Y.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Ammonia Fittings—

(See Fittings, Ammonia.)

Ammunition—

(See Caps, Cartridges, Primers, Shells, Wads.)

Ampere Recording Meters—

(See Meters, Ampere Recording.)

Anchor Bolts—

(See Bolts, Anchor.)

Anchors, Building—

Belmont Iron Works, Inc., Philadelphia.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Chesapeake Iron Works, Baltimore, Md.

Kramer Bros. Foundry Co., Dayton, O.

M. Lanz & Sons, Pittsburgh, Pa.

Pfeuger & Henger Mfg. Co., St. Louis, Mo.

Anchors, Post—

(See Telegraph and Telephone.)

Anchors, Screw—

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Star Expansion Bolt Co., 147-149 Cedar St., New York.

Anchors, Ship, Boat, &c.—

A. S. Morse Co., Boston, Mass.

National Steel Foundry Co., New Haven, Ct.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

W. & J. Tiebout, 118 Chambers St., N. Y.

Andirons—

Anchor Post Iron Works, 41 Park Row, New York.

Murdock-Shaw Co., Boston, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pfeuger & Henger Mfg. Co., St. Louis, Mo.

R. W. Whitehurst Co., Norfolk, Va.

Anemometers—

Keuffel & Esser Co., 127 Fulton St., New York.

Angle Bars—

Carnegie Steel Co., Pittsburgh, Pa.

Interstate Iron & Steel Co., First Nat'l Bank Bldg., Chicago, Ill.

C. Pardee Works, Perth Amboy, N. J.

Republic Iron & Steel Co., Chicago, Ill.

Wm. B. Scaife & Sons Co., Pittsburgh.

Shenango Iron & Steel Co., Pittsburgh.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.

W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.

McClernan & Orr, Monadnock Block, Chicago, Ill.

Pittsburgh Steel Construction Co., Pittsburgh, Pa.

Joseph T. Ryerson & Son, 13-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and

Wayman St., Chicago, Ill.

Walter A. Zelnicker Supply Co., St. Louis.

Angle Bore Bit Stock—

(See Bit Stock, Angle Boring.)

Angles and Tees—

American Bridge Co., of New York, 42 Broadway, New York.

American Tool & Stamping Co., Bridgeport, Ct.

Carnegie Steel Co., Pittsburgh, Pa.

John Eichleay Jr., Co., Pittsburgh, Pa.

Forest City Steel & Iron Co., Cleveland, O.

Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.

Inland Steel Co., First National Bank Bldg., Chicago, Ill.

Interstate Iron & Steel Co., First Nat'l Bank Bldg., Chicago, Ill.

Jones & Laughlin Steel Co., Pittsburgh.

Lockhart Iron & Steel Co., Pittsburgh.

Passaic Steel Co., Paterson, N. J.

Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.

Republic Iron & Steel Co., Chicago, Ill.

Wm. B. Scaife & Sons Co., Pittsburgh.

Shenango Iron & Steel Co., Pittsburgh.

MERCHANTS.

Belmont Iron Works, Inc., Philadelphia.

Bourne-Fuller Co., Cleveland, O.

Arthur C. Harvey Co., Boston, Mass.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

McClernan & Orr, Monadnock Block, Chicago, Ill.

Ogden & Wallace, 577 Greenwich St., New York.

Pierson & Co., 29 Broadway, New York.

Pittsburg Steel Construction Co., Pittsburg, Pa.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
G. H. Schrock, 291 Pearl St., New York
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Angles and Tees, Galvanized—
(See Galvanized Angles, Bars, &c.)

Animal Cages, Tethers—
(See Cages, Tethers.)

Animals, Zinc and Copper—
(See Statuary, Sheet Metal.)

Annealing—
Blake & Johnson, Waterbury, Ct.
Riter-Conley Mfg. Co., Pittsburgh, Pa.
I. S. Spencer's Sons, Guilford, Ct.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Annunciator Wire—
(See Wires, Electrical.)

Annunciator—
W. H. Ostrander & Co., 22 Dey St., N. Y.

Anodes, Copper and Bronze—
Bridgeport Brass Co., 253 Broadway, New York.

H. A. Matthews Mfg. Co., Seymour, Ct.
Anti-Friction Metal—
A. Allan & Son, 485 Greenwich St., N. Y.
Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.

Cool Running Graphite Metal Co., Cincinnati, O.

P. J. Donnan Brass Foundry Co., Bridgeport, Ct.

Theo. Hertz Metal Co., St. Louis, Mo.
Magnolia Metal Co., 511 W. 13th St., New York.

Merchant & Evans Co., Philadelphia, Pa.
Ohio Brass Co., Mansfield, O.

Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.

Pittsburgh White Metal Co., Pittsburgh.

Paul S. Reeves & Son, Philadelphia, Pa.
Riverside Metal Co., Riverside, N. J.

W. G. Rowell & Co., Bridgeport, Conn.

MERCHANTS.

Dodge Mfg. Co., Mishawaka, Ind.
J. J. Ryan & Co., 68-74 W. Monroe St., Chicago, Ill.

Antimony—
American Metal Co., 52 Broadway, N. Y.

Geo. C. Blackwell Sons & Co., The Albany, Liverpool, England.

Empire Metal Co., Syracuse, N. Y.
General Smelting Co., 38 Wall St., N. Y.

Hendricks Bros., 49 Cliff St., New York.

Theo. Hertz Metal Co., St. Louis, Mo.
C. W. Leavitt & Co., 229 Broadway, N. Y.

Merchant & Evans Co., Philadelphia, Pa.

Pittsburgh White Metal Co., Pittsburgh.

Arthur T. Rutter & Co., 256 Broadway, New York.

J. J. Ryan & Co., 68-74 W. Monroe St., Chicago, Ill.

Waite, Ranlet & Co., Boston, Mass.

Anti-Rattlers, Carriage or Wheel—

F. E. Kohler & Co., Canton, O.
New York Belting & Packing Co., 91-93 Chambers St., New York

Raymond Mfg. Co., Corry, Pa.
Sabin Machine Co., Montpelier, Vt.

Anti-Scale Preparations—
Smooth On Mfg. Co., Jersey City, N. J.

Anvil and Vise—
Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.

Eagle Anvil Works, Trenton, N. J.
J. E. Porter Co., Ottawa, Ill.

Schreiber & Conchar Mfg. Co., Dubuque, Ia.

Anvil, Drill and Vise—
(See Vises, Drill and Anvil.)

Anvils, Axe Makers—
Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Anvils, Bench—
Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.
Hollands Mfg. Co., Erie, Pa.

Massachusetts Tool Co., Greenfield, Mass.

Anvils, Blacksmiths—
Columbian Hardware Co., Cleveland, O.

Eagle Anvil Works, Trenton, N. J.
Hay-Budden Mfg. Co., Brooklyn, N. Y.

Wiebusch & Hilger, 9-15 Murray St., N. Y.

Anvils, Chain Makers—
Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Wiebusch & Hilger, 9-15 Murray St., N. Y.

Anvils, Farmers' or Domestic—

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.
Millers Falls Co., 28 Warren St., N. Y.

Vaughan & Bushnell Mfg. Co., Chicago.

Wrightsville Hardware Co., Wrightsville, Pa.

Anvils, Farriers—
Columbian Hardware Co., Cleveland, O.

Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Anvils, Jewelers—
Badger State Machine Co., Janesville, Wis.

Billings & Spencer Co., Hartford, Ct.
Prentiss Vise Co., 44 Barclay St., N. Y.

Williamson Mfg. Co., Bradford, Pa.

Anvils, Plow Makers—
Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Anvils, Saw Makers—
Henry Disston & Sons, Philadelphia, Pa.

Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.
Wiebusch & Hilger, 9-15 Murray St., N. Y.

Anvils, Tool Makers—
Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Apple Corers and Parers—
(See Parers, Apple.)

Apron Carriers, Endless—
(See Carriers, Apron.)

Aprons, Cotton and Wool—
Clinton Wire Cloth Co., Clinton, Mass.

Michigan Wire Cloth Co., Detroit, Mich.

Arbors—
(See Mandrels.)

Arbors, Circular Saw—
F. C. Atkins & Co., Indianapolis, Ind.

Badger State Machine Co., Janesville, Wis.
Defiance Machine Works, Defiance, O.
Henry Disston & Sons, Philadelphia, Pa.

Goodell-Pratt Co., Greenfield, Mass.
 National Saw Co., Newark, N. J.
 Oliver Machinery Co., Grand Rapids, Mich.
 Simonds Mfg. Co., Fitchburg, Mass.
 Wickes Bros., Saginaw, Mich.

Arbors for Drill Chucks—
 R. H. Brown & Co., New Haven, Ct.
 Morse Twist Drill & Machine Co., New Bedford, Mass.
 Oneida National Chuck Co., Oneida, N.Y.
 Standard Tool Co., Cleveland, O.
 Union Mfg. Co., New Britain, Ct.
 Union Twist Drill Co., Athol, Mass.

Arbors for Shell End Mills—
 (See Arbors for Drill Chucks.)

Arbors for Shell Reamers—
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Cleveland Twist Drill Co., Cleveland, O.
 Morse Twist Drill & Mch. Co., New Bedford, Mass.
 Pratt & Whitney Co., Hartford, Ct.
 John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.
 Standard Tool Co., Cleveland, O.
 Whitman & Barnes Mfg. Co., Chicago.

Are Lamps—
 (See Lamps, Arc.)

Arches, Curved, Corrugated—
 Edwards Mfg. Co., Cincinnati, O.
 Garry Iron & Steel Co., Cleveland, O.
 Goff, Horner & Co., Ltd., Pittsburgh, Pa.
 McCullough Iron Co., Wilmington, Del.
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
 Scott & Co., Cincinnati, O.
 Youngstown Iron & Steel Roofing Co., Youngstown, O.

Architects and Builders, Horticultural—
 Lord & Burgham Co., Irvington-on-Hudson, N. Y.

Architectural Iron Work—
 (See Structural Material.)

Architectural Sheet Metal Work—

E. B. Badger & Sons Co., Boston, Mass.
 Berger Mfg. Co., Canton, O.
 Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
 J. B. & J. M. Cernell, 26th St. and 11th Ave., New York.
 G. Drouve Co., Bridgeport, Ct.
 Edwards Mfg. Co., Cincinnati, O.
 Wm. B. Scaife & Sons Co., Pittsburgh.

Armature Binding Wire—
 (See Wires, Electrical.)

Armature Disc Notching Machines—

(See Notching Machines, Armature Disc.)

Armature Discs—
 (See Discs, Armature.)

Armature Sheets—
 American Sheet & Tin Plate Co., Pittsburgh, Pa.

MERCHANTS.
 Bourne-Fuller Co., Cleveland, O.
 McClerman & Orr, Monadnock Block, Chicago, Ill.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Armored Wire—
 (See Wires, Electrical.)

Armor Sealing Machines—
 Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Arms, Cable—
 (See Telegraph and Telephone Pole Supplies.)

Army and Navy Scales—
 (See Scales, Army and Navy.)

Arresters, Lightning—
 General Electric Co., Schenectady, N. Y.
 Ohio Brass Co., Mansfield, O.
 Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Arresters, Spark—
 Byram & Co., Detroit, Mich.
 Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.
 Hendrick Mfg. Co., Carbondale, Pa.
 Michigan Wire Cloth Co., Detroit, Mich.
 Charles Mundt & Sons, 441-447 Pearl St., New York.
 J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
 J. D. Smith Foundry Supply Co., Cleveland, O.

Art Metal Work—
 Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Artesian Well Pumps—
 (See Pumps, Artesian Well.)

Artesian Well Supplies and Tools—
 (See Well Supplies and Tools.)

Asbestos—
 H. W. Johns-Manville Co., 100 William St., New York.

Asbestos and Magnesia Products—

H. W. Johns-Manville Co., 100 William St., New York.

Asbestos Fire Proof Lumber—

H. W. Johns-Manville Co., 100 William St., New York.

Asbestos Material—

H. W. Johns-Manville Co., 100 William St., New York.

Asbestos Pipe and Boiler Coverings—
 (See Coverings, Pipe and Boiler.)

Asbestos Slate—
 (See Slate, Asbestos.)

Ash Cans, Sieves, Sifters—
 (See Cans, Sieves, Sifters.)

Ash Pan Ears—
 (See Ears, Ash Pan and Kettle.)

Asphalt, Refined—
 Asphalt Ready Roofing Co., 136 Water St., New York.

H. W. Johns-Manville Co., 100 William St., New York.

National Roofing Co., Tonawanda, N. Y.

Stowell Mfg. Co., Jersey City, N. J.

Asphalt Roof Coating—
 National Roofing Co., Tonawanda, N. Y.

Stowell Mfg. Co., Jersey City, N. J.

Asphalt Roofing—
 (See Roofing, Asphalt.)

Asphaltum—
 Gulf Refining Co., Pittsburgh, Pa.

Asphaltum Oil—
 (See Oil, Asphaltum.)

Assembling Machines, Bicycle Wheel—

Pratt & Whitney Co., Hartford, Ct.

- Attachments, Pipe Wrench—**
(See Wrench Attachments, Pipe.)
- Attachments, Sash Cord and Ribbon—**
(See Irons, Sash Cord and Ribbon.)
- Auctioneers—**
E. Bissell & Co., 12 Murray St., N. Y.
- Auger Handles—**
(See Handles, Auger.)
- Augers and Bits, Brace, Boring Machine, Car, Millwrights', Rattling, Ship, &c.—**
Connecticut Valley Mfg. Co., Centerbrook, Ct.
Ford Auger Bit Co., Holyoke, Mass.
Forest City Bit & Tool Co., Rockford, Ill.
John H. Graham & Co., 113 Chambers St., New York.
Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, O.
C. E. Jennings & Co., 42 Murray St., New York.
Progressive Mfg. Co., Torrington, Ct.
Russell Jennings Mfg. Co., Deep River, Ct.
Kilborn & Bishop Co., New Haven, Ct.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Job T. Pugh 31st and Ludlow Sts., Philadelphia, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Snell Mfg. Co., Fiskdale, Mass.
Tower & Lyon Co., 36 Chambers St., New York.
- Augers, Breast—**
Hubbard & Co., Pittsburgh, Pa.
- Augers, Dried Fruit and Sugar—**
Enterprise Mfg. Co., Philadelphia, Pa.
- Augers, Hollow—**
Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
Millers Falls Co., 23 Warren St., N. Y.
Silver Mfg. Co., Salem, O.
- Augers, Ice—**
(See Ice Harvesting Tools.)
- Augers, Post Hole—**
Iwan Bros., Strettor, Ill.
Vaughan & Bushnell Mfg. Co., Chicago.
(See also Diggers, Post Hole.)
- Augers, Twist—**
Hubbard & Co., Pittsburgh, Pa.
- Autographic Cash Recorders—**
(See Recorders, Cash, Autographic.)
- Automobile Fenders—**
E. B. Badger & Sons Co., Boston, Mass.
- Automobile Forgings—**
(See Forgings, Automobile.)
- Automobile Gas Generators—**
(See Burners and Gas Generators, Automobile.)
- Automobile Hoods—**
E. B. Badger & Sons Co., Boston, Mass.
- Automobile Lubricants—**
(See Lubricants, Automobile.)
- Automobile Monograms—**
(See Monograms, Automobile.)
- Automobile Parts—**
Acme Steel & Malleable Iron Works, Buffalo, N. Y.
American Tube & Stamping Co., Bridgeport, Ct.
Billings & Spencer Co., Hartford, Ct.
- Boston Gear Works, Boston, Mass.
Crosby Co., Buffalo, N. Y.
Diamond Chain & Mfg. Co., Indianapolis, Ind.
Erie Forge Co., Erie, Pa.
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
Imperial Brass Mfg. Co., 241 S. Jefferson St., Chicago, Ill.
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Lunkenheimer Co., Cincinnati, O.
Mason Regulator Co., Boston, Mass.
Ohio Brass Co., Mansfield, O.
Providence Steel Casting Co., Providence, R. I.
Richmond Forgings Corporation, Richmond, Va.
Strieby & Foote Co., Newark, N. J.
Susquehanna Casting Co., Wrightsville, Pa.
Turner Brass Works, 44 No. Franklin St., Chicago, Ill.
Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
Whitlock Coil Pipe Co., Hartford, Ct.
Walter W. Woodruff & Sons Co., Mt. Carmel, Ct.
Worcester Steel Foundry Co., Worcester, Mass.
- Automobile Pumps—**
(See Pumps, Bicycle and Automobile.)
- Automobile Specialties—**
Imperial Brass Mfg. Co., 241 S. Jefferson St., Chicago, Ill.
- Automobile Springs—**
(See Springs, Automobile.)
- Automobile Steering Devices—**
Boston Gear Works, Boston, Mass.
Ohio Brass Co., Mansfield, O.
- Automobile Tanks—**
(See Tanks, Automobile.)
- Automobile Trucks—**
Four Wheel Drive Wagon Co., Milwaukee, Wis.
- Automobile Turn Tables—**
Bicycle Stepladder Co., 65 Randolph St., Chicago, Ill.
- Automobiles—**
H. H. Franklin Mfg. Co., Syracuse, N. Y.
J. Stevens Arms & Tool Co., Chicopee Falls, Mass.
- Awl Handles—**
(See Handles Chisel, File, Awl, &c.)
- Awls, Ice—**
(See Picks and Awls, Ice.)
- Awls, Peg, Brnd, &c.—**
H. H. Mayhew Co., Shelburne Falls, Mass.
- New England Specialty Co., North Easton, Mass.
- Awls, Rimming—**
Ducharmes & Co., Shelburne Falls, Mass.
- Awls, Scratch, Belt, &c.—**
Dennis & Call Hardware & Tool Co., Springfield, Mass.
- Billings & Spencer Co., Hartford, Ct.
Charles Buck Edge Tool Co., Millbury, Mass.
- Buck Bros., Millbury, Mass.
Dane, Stoddard & Co., Boston, Mass.
Ducharmes & Co., Shelburne Falls, Mass.

H. H. Mayhew Co., Shelburne Falls, Mass.
 Millers Falls Co., 28 Warren St., N. Y.
 Niagara Machine & Tool Works, Buffalo,
 N. Y.

Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.

Tuck Mfg. Co., Brockton, Mass.
 Vaughan & Bushnell Mfg. Co., Chicago.

Axles, Ship Carpenters'—
 Ducharmes & Co., Shelburne Falls, Mass.

Awning Hardware—
 A. S. Morss Co., Boston, Mass.

New Jersey Foundry & Machine Co., 9-15
 Murray St., New York.

Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.

W. & J. Tiebout, 118 Chambers St., N. Y.

Awning Hinges, Hooks.

Pulleys—
 (See Hinges, Hooks, Pulleys.)

Awnings—
 Berger Mfg. Co., Canton, O.

Chattanooga Roofing & Foundry Co.,
 Chattanooga, Tenn.

Edwards Mfg. Co., Cincinnati, O.

Forest City Steel & Iron Co., Cleveland, O.

Wm. B. Scaife & Sons Co., Pittsburgh.

Stewart Iron Works Co., Cincinnati, O.

Awnings, Combination Window and Screen—
 Phenix Mfg. Co., Milwaukee, Wis.

Awnings, Hammock—
 I. E. Palmer, Middletown, Ct.

Axe Brackets, Racks.

Stones—
 (See Brackets, Racks, Stones.)

Axe Factory Machinery—
 J. H. Lingie, Bellefonte, Pa.

Axes, Broad—
 National Cutlery Co., Detroit, Mich.

Axes, Chopping—
 Mann Edge Tool Co., Lewistown, Pa.

National Cutlery Co., Detroit, Mich.

L. & I. J. White Co., Buffalo, N. Y.

Axes, Fireman's—
 Mann Edge Tool Co., Lewistown, Pa.

L. & I. J. White Co., Buffalo, N. Y.

Axes, Ice—
 Gifford-Wood Co., Arlington, Mass.

Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.

L. & I. J. White Co., Buffalo, N. Y.

Axe Clips, Cutters, Grease, &c.—
 (See Clips, Cutters, Grease, &c.)

Axe Iron—
 (See Iron, Axle.)

Axe Straightening Presses—
 (See Straightening Presses, Axle.)

Axles and Wheels—
 Atlas Car & Mfg. Co., Cleveland, O.

Thomas Carlin's Sons Co., Allegheny, Pa.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Arthur Koppel Co., 66-68 Broad St., New
 York.

New Jersey Foundry & Machine Co., 9-15
 Murray St., New York.

Axles, Automobile—
 Billings & Spencer Co., Hartford, Ct.

Case Mfg. Co., Columbus, O.

Standard Roller Bearing Co., 48th St. &
 Girard Ave., Philadelphia, Pa.

Axles, Ball Bearing, Car-
riage—
 Pressed Steel Mfg. Co., Ridge Ave. and
 Willow St., Philadelphia, Pa.

Axles, Car—
 American Bridge Co. of New York, 42
 Broadway, New York.

Atlas Car & Mfg. Co., Cleveland, O.

Block-Pollak Iron Co., Cincinnati, O.

Thomas Carlin's Sons Co., Allegheny, Pa.

Carnegie Steel Co., Pittsburgh, Pa.

Cleveland City Forge & Iron Co., Cleve-
 land, O.

Jones & Laughlin Steel Co., Pittsburgh.

New Jersey Foundry & Machine Co., 9-15
 Murray St., New York.

Samuel Osborn & Co., Boston, Mass.

Otis Steel Co., Limited, Cleveland, O.

Republic Iron & Steel Co., Chicago, Ill.

Sheffield Car Co., Three Rivers, Mich.

Taylor Iron & Steel Co., High Bridge,
 N. J.

Tindel-Morris Co., Eddystone, Pa.

Titusville Forge Co., Titusville, Pa.

Ernst Wiener Co., 68 Broad St., N. Y.

MERCHANTS.
 Bourne-Fuller Co., Cleveland, O.

Pierson & Co., 23 Broadway, New York.

Axles, Carriage and
Wagon—
 Kinsley Iron & Machine Co., Canton,
 Mass.

F. W. Wurster & Co., Brooklyn, N. Y.

Axles, Forged Steel—
 American Bridge Co. of New York, 42
 Broadway, New York.

Block-Pollak Iron Co., Cincinnati, O.

Carnegie Steel Co., Pittsburgh, Pa.

Babbitt Metal—
 A. Allan & Son, 486 Greenwich St., N. Y.

American Valve & Meter Co., Cincin-
 nati, O.

Chas. H. Besly & Co., 15-21 Clinton St.,
 Chicago, Ill.

Repaired Deoxidized Bronze & Metal
 Co., Bridgeport, Ct.

Broderick & Bascom Rope Co., St. Louis.

P. J. Donovan Brass Foundry Co.,
 Bridgeport, Ct.

Empire Metal Co., Syracuse, N. Y.

Theo. Hertz Metal Co., St. Louis, Mo.

A. Leschen & Sons Rope Co., St. Louis.

Magnolia Metal Co., 511 W. 13th St.,
 New York.

Merchant & Evans Co., Philadelphia, Pa.

Ohio Brass Co., Mansfield, O.

Patterson, Gottfried & Hunter, Ltd., 146-
 150 Center St., New York.

F. R. Phillips & Sons Co., Pennsylvania
 Bldg., Philadelphia, Pa.

Pittsburgh White Metal Co., Pittsburgh.

Paul S. Reeves & Son, Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

W. G. Rowell & Co., Bridgeport, Ct.

N. & G. Taylor Co., Chestnut & Third
 Sts., Philadelphia, Pa.

Walter A. Zelnicker Supply Co., St.
 Louis, Mo.

Back Saws—
 (See Saws, Hand, Panel, Back, &c.)

Backs, Fire, Adjustable
Stove—
 Kramer Bros. Foundry Co., Dayton, O.

Badges and Medals—
 American Railway Supply Co., 24 Park
 Place, New York.

Schwerdtle Stamp Co., Bridgeport, Ct.

R. Woodman Mfg. & Supply Co., Boston.

Bag Fillers, Locks—
 (See Fillers, Locks.)

Bagasse. Conveyors, Furnaces—
(See Conveyors, Furnaces.)

Baggage Checks—
(See Checks, Baggage, Keys, &c.)

Bagg, Canvas Tool—
Marshalltown Trowel Co., Marshalltown, Ia.

Bags, Game—
Waterbury Brass Co., Waterbury, Ct.

Bags, School—
I. E. Palmer, Middletown, Ct.

Balls, Kettle, Oil Stove, &c.—
Fanner Mfg. Co., Cleveland, O.

Ballwoods—
(See Woods, Ball.)

Bait, Trolling—
Clark, Horrocks Co., Utica, N. Y.

Bakers' and Confectioners' Tools, Machines, &c.
(Ovens, Yeast Buckets, Pie Racks, Scrapers, Basins, Cake Pans, Cake Cutters, Sieves, &c.)—

Barbour-Stockwell Co., Cambridgeport, Mass.

Baking Pans—
(See Pans, Baking and Roasting.)

Balances and Scales, Assay—

Eimer & Amend, 205 Third Ave., N. Y.

Fairbanks Co., 416 Broome St., New York.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Balances, Sash (House, Car, Ship, &c.)—

Caldwell Mfg. Co., Rochester, N. Y.

Fulman Mfg. Co., Rochester, N. Y.

Balances, Spring—
Bridgeport Brass Co., 253 Broadway, New York.

John Chatillon & Sons, 85 Cliff St., N. Y.

Fairbanks Co., 416 Broome St., New York.

Chas. Forschner & Sons, 206 E. 19th St., New York.

Landers, Frary & Clark, New Britain, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Balances, Tubular, Locomotive—

Chas. Forschner & Sons, 206 E. 19th St., New York.

Balancing Machine, Pulley—
Defiance Machine Works, Defiance, O.

Balconies—
(See Iron Work, Builders', &c.)

Bale Ties—
(See Ties.)

Baling Wire—
(See Wire, Baling.)

Ball Bearing Cups and Cones—
(See Cups and Cones, Ball Bearing.)

Ball Bearings—
(See Bearings, Ball.)

Ball Cores—
Julian D'Este Co., Boston, Mass.

Ball Floats, Copper—
(See Floats, Copper Ball.)

Ball Joints—
(See Joints, Universal.)

Balling Irons—
(See Irons, Balling.)

Ballots, Society—
H. O. Canfield Co., Bridgeport, Ct.

Balls and Pins, Ten Pin—
Boston & Lockport Block Co., Boston.

E. B. Estes & Sons, 45-47 John St., N. Y.

John Sommer's Son, Newark, N. J.

Balls, Bowling and Polo—
E. B. Estes & Sons, 45-47 John St., N. Y.

Balls, Brass—
American Ball Co., Providence, R. I.

Lunkenheimer Co., Cincinnati, O.

Standard Roller Bearing Co., 48th St. & Girard Ave., Philadelphia, Pa.

Balls, Bronze—
Standard Roller Bearing Co., 48th St. & Girard Ave., Philadelphia, Pa.

Balls for Grinding Machines—
Strieby & Foote Co., Newark, N. J.

Balls, Fuller Rubber—
New York Belting & Packing Co., 91-93 Chambers St., New York.

Balls, Half, Copper and Zinc—
Edwards Mfg. Co., Cincinnati, O.

Balls, Ox—
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 23-41 Chambers St., New York.

Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

Balls, Steel—
American Ball Co., Providence, R. I.

Bantam Anti-Friction Co., Bantam, Ct.

Colonial Steel Co., Pittsburgh, Pa.

Standard Roller Bearing Co., 48th St. & Girard Ave., Philadelphia, Pa.

Ballusters, Spun—
(See Architectural Sheet Metal Work.)

Band Chimes—
(See Chimes, Church and Band.)

Band Cutter and Nail Puller—
(See Nail Puller and Band Cutter.)

Band Iron—
(See Hoops and Bands.)

Band Saws—
(See Saws, Band.)

Band Saws for Metal—
(See Saws, Band, for Metals.)

Band Saw, Steel—
(See Steel, Band Saw.)

Bands, Filing, Tape—
E. L. Sibley, Bennington, Vt.

Bands, Gaff, Boom and Mast—
W. & J. Liebout, 118 Chambers St., N. Y.

Bands, Horse Tail—
Geo. B. Knapp, Bridgeport, Ct.

Bands, Hose—
(See Hose Attachments.)

Bands, Neck Yoke—
Advance Mfg. Co., Racine June., Wis.

Wrought Washer Mfg. Co., Milwaukee, Wis.

Bands, Shingle—
Walter A. Zelmcker Supply Co., St. Louis, Mo.

Bands, Vehicle, Hub, Sand and Mud—
Standard Welding Co., Cleveland, O.

Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

Bank Fixtures and Furniture—
Glen Mfg. Co., Ellwood City, Pa.

- Banks and Bankers—**
 Coal & Iron National Bank, 143 Liberty St., New York.
 Holzman Bros., 401 Broadway, New York.
- Banquet Lamps—**
 (See Lamps, Table, Banquet, &c.)
- Barb Wire—**
 (See Wire, Barb.)
- Barb Wire Carriers—**
 (See Carriers, Barb Wire.)
- Barbers' Shears—**
 (See Shears, Barbers'.)
- Barbing Machines, Wire—**
 Wilber Emery, Oberlin, O.
 Henry Perkins Co., Bridgewater, Mass.
- Barbing Machines, Wire Nail—**
 H. J. Miller's Sons, Bridgewater, Mass.
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Barges and Hulls, Steel—**
 American Bridge Co. of New York, 42 Broadway, New York.
 Newport News Shipbuilding & Dry Dock Co., Newport News, Va.
- Barn Door Bolts—**
 (See Bolts, Barn Door.)
- Barn Door Stay Rollers—**
 (See Rollers, Stay.)
- Barometers—**
 Keuffel & Esser Co., 127 Fulton St., New York.
- Barrel Covers, Drainers, Elevators, &c.—**
 (See Covers, Drainers, Elevators, &c.)
- Barrel Machinery and Tools—**
 Badger State Machine Co., Janesville, Wis.
 Peter Gerlach Co., Cleveland, O.
 Humphrey Machine Co., Keene, N. H.
- Barrels and Half Barrels, Steel—**
 W. J. Clark Co., Salem, O.
 Cleveland Wire Spring Co., Cleveland, O.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
- Barrels and Kegs, Miniature, Wood—**
 E. B. Estes & Sons, 45-47 John St., N. Y.
- Barrels, Blasting—**
 Hubbard & Co., Pittsburgh, Pa.
- Barrels, Galvanized Water—**
 Wm. B. Scaife & Sons Co., Pittsburgh.
- Barrels, Galvanizing—**
 (See Galvanizing Barrels.)
- Barrels, Oil Well, &c., Seamless Steel—**
 Barnes Mfg. Co., Mansfield, Ohio.
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
- Barrels, Rifle—**
 J. Stevens Arms & Tool Co., Chicopee Falls, Mass.
- Barrels, Steel—**
 Wm. B. Scaife & Sons Co., Pittsburgh.
- Barrels, Tack—**
 E. B. Estes & Sons, 45-47 John St., N. Y.
- Barrels, Tumbling—**
 Baird Machine Co., Oakville, Ct.
 Byram & Co., (Inc.), Detroit, Mich.
 J. Gilmour, Bennett Bldg., New York.
 Henderson Bros., Waterbury, Ct.
 Kimball Bros. & Sprague, Brockton, Mass.
- H. J. Miller's Sons, Bridgewater, Mass.*
- Northern Engineering Works, Detroit, Mich.
 S. Obermayer Co., Cincinnati, O.
 J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
 Henry Perkins Co., Bridgewater, Mass.
 Royersford Foundry & Machine Co., Royersford, Pa.
 Wm. B. Scaife & Sons Co., Pittsburgh.
 Sheffield Car Co., Three Rivers, Mich.
 J. D. Smith Foundry Supply Co., Cleveland, O.
 Tudor Boiler Mfg. Co., Cincinnati, O.
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
 Walton & Macke, Kokomo, Ind.
 Whiting Foundry Equipment Co., Harvey, Ill.
- Barrow Wheels—**
 (See Wheels, Barrow.)
- Barrows, Charging Foundry—**
 Bryam & Co., Detroit, Mich.
- Barrows, Hand—**
 W. J. Clark Co., Salem, O.
 Cleveland Wire Spring Co., Cleveland, O.
- Barrows, Toy—**
 (See Toy Barrows.)
- Barrows, Wheel, Ash, Coal, Coke, Charcoal, &c.—**
 Atlas Car & Mfg. Co., Cleveland, O.
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.
 F. H. Evans, Brooklyn, N. Y.
 Fairbanks Co., 416 Broome St., New York.
 C. W. Hunt Co., West New Brighton, N. Y.
 Jackson Mfg. Co., Harrisburg, Pa.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
 Meehan Boiler & Construction Co., Lowellville, O.
 Osborn Mfg. Co., Cleveland, O.
 J. W. Paxson Co., Philadelphia, Pa.
 J. D. Smith Foundry Supply Co., Cleveland, O.
 Sterling Wheelbarrow Co., Milwaukee, Wis.
 Syracuse Chilled Plow Co., Syracuse, N. Y.
- Barrows, Wheel, Baggage—**
 Atlas Car & Mfg. Co., Cleveland, O.
 Boston & Lockport Block Co., Boston, Mass.
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.
 Fairbanks Co., 416 Broome St., New York.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
 Syracuse Chilled Plow Co., Syracuse, N. Y.
- Barrows, Wheel, Brick—**
 American Fork & Hoe Co., Cleveland, O.
 Atlas Car & Mfg. Co., Cleveland, O.
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.
 Fairbanks Co., 416 Broome St., New York.
 Jackson Mfg. Co., Harrisburg, Pa.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
 Sterling Wheelbarrow Co., Milwaukee, Wis.
- Barrows, Wheel, Canal or Railroad—**
 American Fork & Hoe Co., Cleveland, O.
 Atlas Car & Mfg. Co., Cleveland, O.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.
Fairbanks Co., 416 Broome St., New York.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
J. D. Smith Foundry Supply Co., Cleveland, O.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, Canning Factory—
Boston & Lockport Block Co., Boston.
Fairbanks Co., 416 Broome St., New York.

Barrows, Wheel, Charging and Ore—
Atlas Car & Mfg. Co., Cleveland, O.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.
Fairbanks Co., 416 Broome St., New York.
C. W. Hunt Co., West New Brighton, N. Y.

Jackson Mfg. Co., Harrisburg, Pa.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Meehan Boiler & Construction Co., Lowellville, O.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Osborn Mfg. Co., Cleveland, O.
J. W. Paxson Co., Philadelphia, Pa.
J. D. Smith Foundry Supply Co., Cleveland, O.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, Dirt—
American Fork & Hoe Co., Cleveland, O.
Atlas Car & Mfg. Co., Cleveland, O.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.
Jackson Mfg. Co., Harrisburg, Pa.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Osborn Mfg. Co., Cleveland, O.
J. D. Smith Foundry Supply Co., Cleveland, O.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, Foundry and Smelting—
Jackson Mfg. Co., Harrisburg, Pa.
Sterling Wheelbarrow Co., Milwaukee, Wis.

Barrows, Wheel, Garden—
Atlas Car & Mfg. Co., Cleveland, O.
A. Buch's Sons Co., Elizabethtown, Pa.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.
Fairbanks Co., 416 Broome St., New York.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, General Purpose—
American Fork & Hoe Co., Cleveland, O.
Atlas Car & Mfg. Co., Cleveland, O.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.
Fairbanks Co., 416 Broome St., New York.

Jackson Mfg. Co., Harrisburg, Pa.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Osborn Mfg. Co., Cleveland, O.
J. D. Smith Foundry Supply Co., Cleveland, O.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, Mining—
Atlas Car & Mfg. Co., Cleveland, O.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.
Fairbanks Co., 416 Broome St., New York.
Jackson Mfg. Co., Harrisburg, Pa.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Osborn Mfg. Co., Cleveland, O.
J. D. Smith Foundry Supply Co., Cleveland, O.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, Mortar or Concrete—

American Fork & Hoe Co., Cleveland, O.
Atlas Car & Mfg. Co., Cleveland, O.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.
Fairbanks Co., 416 Broome St., New York.
Jackson Mfg. Co., Harrisburg, Pa.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, Oyster—
Atlas Car & Mfg. Co., Cleveland, O.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.
Jackson Mfg. Co., Harrisburg, Pa.
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Barrows, Wheel, Packing-house—

Atlas Car & Mfg. Co., Cleveland, O.
Boston & Lockport Block Co., Boston.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.
Fairbanks Co., 416 Broome St., New York.
C. W. Hunt Co., West New Brighton, N. Y.
Jackson Mfg. Co., Harrisburg, Pa.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Sterling Wheelbarrow Co., Milwaukee, Wis.

Barrows, Wheel, Pig Metal—
Jackson Mfg. Co., Harrisburg, Pa.

Barrows, Wheel, Salt—
American Fork & Hoe Co., Cleveland, O.
Atlas Car & Mfg. Co., Cleveland, O.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.
Fairbanks Co., 416 Broome St., New York.
Jackson Mfg. Co., Harrisburg, Pa.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
J. D. Smith Foundry Supply Co., Cleveland, O.
Sterling Wheelbarrow Co., Milwaukee, Wis.

Barrows, Wheel, Stable or Sawdust—

Atlas Car & Mfg. Co., Cleveland, O.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.
Jackson Mfg. Co., Harrisburg, Pa.
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Sterling Wheelbarrow Co., Milwaukee, Wis.
Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, Stave—

American Fork & Hoe Co., Cleveland, O.
Atlas Car & Mfg. Co., Cleveland, O.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Barrows, Wheel, Stone—

American Fork & Hoe Co., Cleveland, O.
Atlas Car & Mfg. Co., Cleveland, O.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.
Jackson Mfg. Co., Harrisburg, Pa.
Kilbourne & Jacobs Mfg. Co., Columbus, O.

J. D. Smith Foundry Supply Co., Cleveland, O.
Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, Tile—

Atlas Car & Mfg. Co., Cleveland, O.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.
Jackson Mfg. Co., Harrisburg, Pa.
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Sterling Wheelbarrow Co., Milwaukee, Wis.
Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, Wharf or Phosphate—

Atlas Car & Mfg. Co., Cleveland, O.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.
Jackson Mfg. Co., Harrisburg, Pa.
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Sterling Wheelbarrow Co., Milwaukee, Wis.
Syracuse Chilled Plow Co., Syracuse, N. Y.

Bars, Aluminum—

Pittsburgh Reduction Co., Pittsburgh, Pa.

Bars and Segments, Com-**mutator—**

Ballings & Spencer Co., Hartford, Ct.
Keystone Drop Forge Works, Chester, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Bars, Bicycle Handle—

Ames Sword Co., Chicopee, Mass.
Dancer Stove & Mfg. Div., Am. Stove Co., Cleveland, O.

John R. Keim Mills, Buffalo, N. Y.

Bars, Chrome Steel, for**Jails, &c.—**

Chrome Steel Works, Chrome, N. J.

Bars, Copper—

(See Copper.)

Bars, Crow and Claw—

Hubbard & Co., Pittsburgh, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.

Bars, Eye—

American Bridge Co. of New York, 42 Broadway, New York.
Carnegie Steel Co., Pittsburgh, Pa.
Passaic Steel Co., Paterson, N. J.
Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.

Titusville Forge Co., Titusville, Pa.

Bars, Grate—

(See Grate Bars.)

Bars, Ice—

Gifford-Wood Co., Arlington, Mass.
L. & I. J. White Co., Buffalo, N. Y.

Bars, Iron—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Burden Iron Co., Troy, N. Y.
Carnegie Steel Co., Pittsburgh, Pa.
J. K. Dimmick & Co., New Land Title Bldg., Philadelphia, Pa.

Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.

Interstate Iron & Steel Co., First Nat'l Bank Bldg., Chicago, Ill.

Kinsley Iron & Machine Co., Canton, Mass.

Lockhart Iron & Steel Co., Pittsburgh, Pa.

Milton Mfg. Co., Milton, Pa.

Passaic Steel Co., Paterson, N. J.

Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.

Republic Iron & Steel Co., Chicago, Ill.

Shenango Iron & Steel Co., Pittsburgh, Pa.

F. W. Wurster & Co., Brooklyn, N. Y.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.

Cabene & Co., Real Estate Trust Bldg., Philadelphia, Pa.

Denman & Davis, 85-87 John St., N. Y.

Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.

Walter Graham, Harrison Bldg., Philadelphia, Pa.

Arthur C. Harvey Co., Boston, Mass.

J. H. Hillman & Son, Pittsburgh, Pa.

I. C. Hirsch Iron, Steel & Rail Co., Cincinnati, O.

C. B. Houston & Co., Gerard Bldg., Philadelphia, Pa.

W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.

Ernest Law & Co., 15th and Market Sts., Philadelphia, Pa.

E. B. Leach & Co., Real Estate Trust Bldg., Philadelphia, Pa.

N. Lilienberg, Betz Bldg., Philadelphia, Pa.

Harold McCalla, 619 N. Front St., Philadelphia, Pa.

McClerman & Orr, Monadnock Block, Chicago, Ill.

John B. Newkirk & Co., Harrison Bldg., Philadelphia, Pa.

Patterson, Gottfried & Hunter, Ltd., 146-150 Center St., New York.

Pierson & Co., 29 Broadway, New York.

Pittsburgh Steel Construction Co., Pittsburgh, Pa.

Horace T. Potts & Co., 316-320 N. 3d St., Philadelphia, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Charles G. Shepard, Buffalo, N. Y.

Bars, Iron, Galvanized—
(See Galvanized Angles, Bars, &c.)

Bars, Lining and Tamping—
Hubbard & Co., Pittsburgh, Pa.

Bars, Locomotive Cylinder

Boring—
(See Boring Bars, Locomotive Cylinder.)

Bars, Mine Spike—
Hubbard & Co., Pittsburgh, Pa.

Bars, Muck—
Carnegie Steel Co., Pittsburgh, Pa.

Interstate Iron & Steel Co., First Nat'l Bank Bldg., Chicago, Ill.

Milton Mfg. Co., Milton, Pa.

Republic Iron & Steel Co., Chicago, Ill.

Shenango Iron & Steel Co., Pittsburgh.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngtown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Cabeen & Co., Real Estate Trust Bldg., Philadelphia, Pa.

Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

Jerome Keeley & Co., 421 Chestnut St., Philadelphia, Pa.

J. Tatnall Lea & Co., 19 S. 12th St., Philadelphia, Pa.

E. B. Leaf & Co., Real Estate Trust Bldg., Philadelphia, Pa.

J. J. Mohr, 131 S. 4th St., Philadelphia, Pa.

Phillips-Lafitte Co., Pennsylvania Bldg., Philadelphia, Pa.

J. Wesley Pullman, 238 S. 3d St., Philadelphia, Pa.

Frank Samuel, 15th & Market Sts., Philadelphia, Pa.

W. P. Snyder & Co., Pittsburgh, Pa.

Wheeler, Midlin & Co., Fidelity Bldg., Philadelphia, Pa.

E. H. Wilson & Co., 112 N. Broad St., Philadelphia, Pa.

Bars, Open Hearth Sheet—
Allegheny Steel Co., Pittsburgh, Pa.

Bars, Open Hearth Tin—
Allegheny Steel Co., Pittsburgh, Pa.

Bars, Rack and Ring,

Towel—
Handy Things Co., Ludington, Mich.

Bars, Reamed Iron—
Shenango Iron & Steel Co., Pittsburgh.

Bars, Sash, Metal Covered—
Glen Mfg. Co., Ellwood City, Pa.

Bars, Sheet—
Allegheny Steel Co., Pittsburgh, Pa.

Carnegie Steel Co., Pittsburgh, Pa.

La Belle Iron Works, Steubenville, O.

N. & G. Taylor Co., Chestnut and Third Sts., Philadelphia, Pa.

Youngtown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Cabeen & Co., Real Estate Trust Bldg., Philadelphia, Pa.

Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

Patterson, Gottfried & Hunter, Ltd., 146-150 Center St., New York.

Scully Steel & Iron Co., Halsted and Wayman Sta., Chicago, Ill.

W. F. Snyder & Co., Pittsburgh, Pa.

Bars, Shutter—
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Stanley Works, New Britain, Ct.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Bars, Spring Steel—
Harrow Spring Co., Kalamazoo, Mich.

Bars, Stay Bolt, Hollow—
Falls Hollow Staybolt Co., Cuyahoga Falls, O.

Bars, Steel—
Allegheny Steel Co., Pittsburgh, Pa.

American Bridge Co. of New York, 42 Broadway, New York.

American Iron & Steel Mfg. Co., Lebanon, Pa.

American Tube & Stamping Co., Bridgeport, Ct.

Braeburn Steel Co., Braeburn, Pa.

Carnegie Steel Co., Pittsburgh, Pa.

Chrome Steel Works, Chrome, N. J.

Henry Disston & Sons, Philadelphia, Pa.

John Eichleay, Jr. Co., Pittsburgh, Pa.

Forest City Steel & Iron Co., Cleveland, O.

Harrow Spring Co., Kalamazoo, Mich.

John Illingworth Steel Co., Frankford, Philadelphia, Pa.

Inland Steel Co., First National Bank Bldg., Chicago, Ill.

Interstate Iron & Steel Co., First Nat'l Bank Bldg., Chicago, Ill.

Wm. Jessop & Sons, Ltd., 91 John St., New York.

Jones & Laughlin Steel Co., Pittsburgh.

Kidd Bros. & Burgher Steel Wire Co., McKees Rocks, Pa.

La Belle Iron Works, Steubenville, O.

Lockhart Iron & Steel Co., Pittsburgh.

C. Pardee Works, Perth Amboy, N. J.

Passaic Steel Co., Paterson, N. J.

Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.

Republic Iron & Steel Co., Chicago, Ill.

Scully Steel & Iron Co., Halsted & Wayman Sts., Chicago, Ill.

MERCHANTS.

Belmont Iron Works, Inc., Philadelphia.

Bourne-Fuller Co., Cleveland, O.

Cabeen & Co., Real Estate Trust Bldg., Philadelphia, Pa.

Justice Cox, Jr. & Co., Ltd., Land Title Bldg., Philadelphia, Pa.

Denman & Davis, 85 John St., N. Y.

Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.

Arthur C. Harvey Co., Boston, Mass.

J. H. Hillman & Son, Pittsburgh, Pa.

I. C. Hirsch Iron, Steel & Rail Co., Cincinnati, O.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

W. K. Kenly Co., Phil Bldg., Chicago, Ill.

Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.
E. S. Leal & Co., Real Estate Trust Bldg., Philadelphia, Pa.
N. Lillenberg, Betz Bldg., Philadelphia.
Harold McCalla, 619 N. Front St., Philadelphia, Pa.
McClerman & Orr, Monadnock Block, Chicago, Ill.
Geo. Nash & Co., 24 S. Clinton St., Chicago, Ill.
John S. Newkirk & Co., 15th & Market Sts., Philadelphia, Pa.
Ogden & Wallace, 577 Greenwich St., N.Y.
Patterson, Gottfried & Hunter, Ltd., 146-150 Center St., New York.
Phillips-Lafitte Co., Pennsylvania Bldg., Philadelphia, Pa.
Pierson & Co., 29 Broadway, New York.
Pittsburgh Steel Construction Co., Pittsburgh, Pa.
Horace T. Potts & Co., 316-320 N. 3d St., Philadelphia, Pa.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Charles G. Shepard, Buffalo, N. Y.
W. P. Snyder & Co., Pittsburgh, Pa.
Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.

Bars, Steel, Hollow—
Falls Hollow Staybolt Co., Cuyahoga Falls, O.

Bars, Telegraph Digging—
Hubbard & Co., Pittsburgh, Pa.

Bars, Tin—
N. & G. Taylor Co., Chestnut and Third Sts., Philadelphia, Pa.

Bars, Wrecking—
Marshalltown Trowel Co., Marshalltown, Ia.

Base Knobs—
 (See Knobs, Base.)

Bases, Clock—
H. A. Matthews Mfg. Co., Seymour, Ct.

Bases, Post—
 (See Caps and Bases.)

Bases, Switch—
E. E. Estes & Sons, 45-47 John St., N.Y.

Basin Plugs—
 (See Pumping Supplies.)

Basket Handles, Wire—
 (See Handles, Basket, Wire.)

Basket Trucks—
 (See Trucks, Basket.)

Baskets, Bread or Cake, Silver and Nickel Plated—
International Silver Co., 9-13 Maiden Lane, New York.

New York Stamping Co., Brooklyn, N. Y.

Baskets, Counter Display—
Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Baskets, Fish—
Buffalo Wire Works Co., Buffalo, N. Y.

Baskets, Fishing—
Clark, Horrocks Co., Utica, N. Y.

Baskets, Letter—
Kilbourne Mfg. Co., Troy, N. Y.

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Baskets, Oyster and Clam—
John P. Smith & Co., New Haven, Ct.

Baskets, Soap—
 (See Household Articles.)

Baskets, Sponge, &c.—
Buffalo Wire Works Co., Buffalo, N. Y.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Estey Wire Works Co., 59 Fulton St., New York.

Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Kilbourne Mfg. Co., Troy, N. Y.

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Baskets, Waste—
Buffalo Wire Works Co., Buffalo, N. Y.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Estey Wire Works Co., 59 Fulton St., New York.

Kilbourne Mfg. Co., Troy, N. Y.

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Baskets, Wire—
Howard & Morse, 45 Fulton St., N. Y.

Baskets, Wood, Grate—
Murdock-Shaw Co., Boston, Mass.

Bath Wastes—
 (See Overflow and Wastes, Bath.)

Bathroom and Toilet Specialties—
American King Co., Waterbury, Ct.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Kilbourne Mfg. Co., Troy, N. Y.

Charles Parker Co., Meriden, Ct.

Parker Wire Goods Co., Worcester, Mass.

Pritchard-Strong Co., Rochester, N. Y.

Tapin Mfg. Co., New Britain, Ct.

Wire Goods Co., Worcester, Mass.

Baths, Plunge, Sitz, &c.—
Sturges & Burn Mfg. Co., Chicago, Ill.

Baths, Shower—
Imperial Brass Mfg. Co., 241 S. Jefferson St., Chicago, Ill.

Bathubs—
Humphreys Mfg. Co., Mansfield, O.

Republic Metalware Co., Buffalo, N. Y.

Bats, Ball—
E. B. Estes & Sons, 45-47 John St., N. Y.

Batteries, Blasting—
Ingersoll-Rand Co., 11 Broadway, N. Y.

Batteries, Electric—
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

General Electric Co., Schenectady, N. Y.

W. R. Ostrander & Co., 22 Dey St., N. Y.

Battery, Charging, Electrical—
C. & G. Electric Co., Garwood, N. J.

Battery Plates, Rolled Zinc—
Illinois Zinc Co., Peru, Ill.

Matthiessen & Hegeler Zinc Co., La Salle, Ill.

F. Phillips & Son, So. Hanover, Mass.

Sandoval Zinc Co., 122 N. Peoria St., Chicago, Ill.

Battery Zincs—
 (See Zincs for Leclanche Batteries.)

Bay Windows—
 (See Architectural Sheet Metal Work.)

Benders, Hand—
Badger State Machine Co., Janesville, Wis.

Niagara Machine & Tool Works, Buffalo, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Stanley Rule & Level Co., New Britain, Ct.

Beaders, Sheet Metal—

Nazel Engineering & Machine Works,
Ridge Ave. & 11th St., Philadelphia.
Niagara Machine & Tool Co., Buffalo,
N. Y.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Beads, Corner—

Merritt & Co., 1024-1028 Ridge Ave., Phila-
delphia, Pa.
Youngstown Iron & Steel Roofing Co.
Youngstown, O.

Beam Hooks, Shears—

(See Hooks, Shears.)

Beams and Channels—

American Bridge Co. of New York, 42
Broadway, New York.
Carnegie Steel Co., Pittsburgh, Pa.
John Eichleay, Jr., Co., Pittsburgh, Pa.
Forest City Steel & Iron Co., Cieve-
land, O.
Harrisburg Pipe & Pipe Bending Co.,
Harrisburg, Pa.
Inland Steel Co., First National Bank
Bldg., Chicago, Ill.
Jones & Laughlin Steel Co., Pittsburgh
Mathew Lanz & Sons, Pittsburgh, Pa.
Passaic Steel Co., Paterson, N. J.
Phoenix Iron Co., 410 Walnut St., Phila-
delphia, Pa.
Republic Iron & Steel Co., Stock Ex-
change Bldg., Chicago, Ill.
Wm. B. Scaife & Sons Co., Pittsburgh.

MERCHANTS.

Belmont Iron Works, Inc., Philadelphia.
Bourne-Fuller Co., Cleveland, O.
Arthur C. Harvey Co., Boston, Mass.
C. B. Houston & Co., Girard Bldg.,
Philadelphia, Pa.
W. K. Kenly Co., First National Bank
Bldg., Chicago, Ill.
Northern Engineering Works, Detroit,
Mich.
Phillips-Lafitte Co., Pennsylvania Bldg.,
Philadelphia, Pa.
Pierson & Co., 29 Broadway, New York.
Pittsburgh Steel Construction Co., Pitts-
burgh, Pa.
Joseph T. Ryerson & Son, 18-22 Milwau-
kee Ave., Chicago, Ill.
G. H. Schrock, 291 Pearl St., New York.
Scully Steel & Iron Co., Halsted and
Wayman Sts., Chicago, Ill.

**Beams and Channels, Galva-
nized—**

(See Galvanized Angles, Bars, &c.)

Beams, Flaw—

Inland Steel Co., First National Bank
Bldg., Chicago, Ill.

Beams, Scale—

(See Scale Beams.)

Bearing Metal—

A. Allan & Son, 486 Greenwich St., N. Y.
P. J. Donovan Brass Foundry Co.,
Bridgeport, Ct.
Magnolia Metal Co., 511 W. 13th St.,
New York.

Merchant & Evans Co., Philadelphia, Pa.
Ohio Brass Co., Mansfield, O.
Phosphor-Bronze Smelting Co. Ltd., 2200
Washington Ave., Philadelphia, Pa.

Bearings, Axle Roller—

Bancroft & Co., Fifth & Chestnut Sts.,
Philadelphia, Pa.

Bearings, Ball—

American Ball Co., Providence, R. I.

Bantam Anti-Friction Co., Bantam, Ct.
McCabe Hanger Mfg. Co., 425-427 W. 25th
St., New York.

Pressed Steel Mfg. Co., Ridge Ave. and
Willow St., Philadelphia, Pa.
Standard Roller Bearing Co., 48th St. &
Girard Ave., Philadelphia, Pa.

**Bearings, Ball and Roller
Thrust—**

American Ball Co., Providence, R. I.
Bantam Anti-Friction Co., Bantam, Ct.

**Bearings, Car and Locomo-
tive—**

Ohio Brass Co., Mansfield, O.
Paul S. Reeves & Son, Philadelphia, Pa.

Bearings, Car Roller—

Bancroft & Co., Fifth & Chestnut Sts.,
Philadelphia, Pa.

Bearings, Lead Lined—

Bridgeport Deoxidized Bronze & Metal
Co., Bridgeport, Ct.

Ohio Brass Co., Mansfield, O.
Paul S. Reeves & Son, Philadelphia, Pa.

Bearings, Oilless Shaft—

Boston & Lockport Block Co., Boston.
Case Mfg. Co., Columbus, O.

North American Metaline Co., Long Is-
land City, N. Y.

Ohio Brass Co., Mansfield, O.

Bearings, Ring Oiling—

Bancroft & Co., Fifth & Chestnut Sts.,
Philadelphia, Pa.

H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.
Geo. V. Cresson Co., 18th St. and Alle-
gheny Ave., Philadelphia, Pa.

Ohio Brass Co., Mansfield, O.
T. B. Wood's Sons Co., Chambersburg,
Pa.

Bearings, Roller—

American Ball Co., Providence, R. I.
Atlas Car & Mfg. Co., Cleveland, O.

Bancroft & Co., Fifth & Chestnut Sts.,
Philadelphia, Pa.

Bantam Anti-Friction Co., Bantam, Ct.
New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

Standard Roller Bearing Co., 48th St. &
Girard Ave., Philadelphia, Pa.

Bearings, Self-Oiling—

Bancroft & Co., Fifth & Chestnut Sts.,
Philadelphia, Pa.

H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.
Geo. V. Cresson Co., 18th St. and Alle-
gheny Ave., Philadelphia, Pa.

Jones & Laughlin Steel Co., Pittsburgh.

T. B. Woods Sons Co., Chambersburg,
Pa.

Bearings, Thrust—

American Ball Co., Providence, R. I.
Bantam Anti-Friction Co., Bantam, Ct.

Foole Engineering & Machine Co., Balti-
more, Md.

**Beaters, Clothes, Carpet,
&c.—**

Holt-Lyon Co., Inc., Tarrytown, N. Y.
Raymond Mfg. Co., Ltd., Corry, Pa.

Beneters, Edge—

Edward Darby & Sons, 123-125 Arch St.,
Philadelphia, Pa.

Holt-Lyon Co., Inc., Tarrytown, N. Y.

Kilbourne Mfg. Co., Troy, N. Y.

Parker Wire Goods Co., Worcester, Mass.

Taplin Mfg. Co., New Britain, Ct.
Turner & Seymour Mfg. Co., Torrington, Ct.

Wire Goods Co., Worcester, Mass.
Bed Casters, Fasteners, Keys, Links, Screws—
(See Casters, Fasteners, Keys, Links, Screws.)

Bed Fabrics, Wire Woven—
Cleveland Wire Spring Co., Cleveland, O.
Clinton Wire Cloth Co., Clinton, Mass.

Bedsteads, Brass and Iron—
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Van Dorn Iron Works Co., Cleveland, O.
Bedsteads, Jail—
Ohio Structural Iron Co., Sandusky, O.

Beer Pump Supplies—
(See Pump Supplies, Beer)

Bees Wax, Pattern—
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Beet Shredding Knives—
(See Knives, Beet.)

Beet Scoops—
(See Scoops, Fork, Vegetable.)

Belaying Pins—
(See Pins, Belaying.)

Bell Cord Couplings—
(See Couplings, Bell Cord.)

Bell Cranks, Levers, &c.—
(See Cranks, Levers, &c.)

Bell Hangers' Bits—
(See Bits, Bell Hangers'.)

Bell Hangers—
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Bellows, Blacksmiths' Molders', &c.—

S. Obermayer Co., Cincinnati, O.
Osborn Mfg. Co., Cleveland, O.
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Geo. M. Scott, Johnson & 22d Sts., Chicago, Ill.

J. D. Smith Foundry Supply Co., Cleveland, O.

Bellows, Fire Place—

Murdock-Shaw Co., Boston, Mass.

Bells, Alarm—
Bevin Bros. Mfg. Co., East Hampton, Ct.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

E. W. Vanduzen Co., Cincinnati, O.

Bells, Altar and Lodge—
Bevin Bros. Mfg. Co., East Hampton, Ct.

Bells, Automobile—
Plevin Bros. Mfg. Co., East Hampton, Ct.
Frank Mossberg Co., Attleboro, Mass.

Bells, Bicycle—
Bevin Bros. Mfg. Co., East Hampton, Ct.
Bridgeport Brass Co., 253 Broadway, N. Y.
John H. Graham & Co., 113 Chambers St., New York.

Frank Mossberg Co., Attleboro, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Scovill Mfg. Co., Waterbury, Ct.

Bells, Call—

(See Bells, Tea and Call.)

Bells, Car—

Bevin Bros. Mfg. Co., East Hampton, Ct.
John H. Graham & Co., 113 Chambers St., New York.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Plevner & Henger Mfg. Co., St. Louis, Mo.
E. W. Vanduzen Co., Cincinnati, O.

Bells, Cow and Sheep—

Bevin Bros. Mfg. Co., East Hampton, Ct.
E. W. Vanduzen Co., Cincinnati, O.

Bells, Dog—

Bevin Bros. Mfg. Co., East Hampton, Ct.
Bells, Door—

Arcade Mfg. Co., Freeport, Ill.

Bevin Bros. Mfg. Co., East Hampton, Ct.
Builders' Supply Corporation, Indianapolis, Ind.

John H. Graham & Co., 113 Chambers St., New York.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Bells, Dumb—

E. B. Estes & Sons, 45-47 John St., N. Y.

Kramer Bros. Foundry Co., Dayton, O.

Plevner & Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

John Sommer's Son, Newark, N. J.

A. C. Williams, Ravenna, O.

Wrightsville Hardware Co., Wrightsville, Pa.

Bells, Electric—

Bevin Bros. Mfg. Co., East Hampton, Ct.
W. R. Ostrander & Co., 22 Dey St., N. Y.

Bells, Engine—

Bevin Bros. Mfg. Co., East Hampton, Ct.

Wm. Powell Co., Cincinnati, O.

Paul S. Reeves & Son, Philadelphia, Pa.

E. W. Vanduzen Co., Cincinnati, O.

Bells, Farm, Church and School, &c.—

Bevin Bros. Mfg. Co., East Hampton, Ct.

Goulds Mfg. Co., Seneca Falls, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

E. W. Vanduzen Co., Cincinnati, O.

Bells, Fire—

Bevin Bros. Mfg. Co., East Hampton, Ct.

John H. Graham & Co., 113 Chambers St., New York.

Bells, Fog—

Bevin Bros. Mfg. Co., East Hampton, Ct.

E. W. Vanduzen Co., Cincinnati, O.

Bells, Gong—

Bevin Bros. Mfg. Co., East Hampton, Ct.

H. A. Matthews Mfg. Co., Seymour, Ct.

W. R. Ostrander & Co., 22 Dey St., N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Plevner & Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Bells, House and Engine Room (on Carriage)—

Bevin Bros. Mfg. Co., East Hampton, Ct.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Bells, Lever—
W. R. Ostrander & Co., 22 Dey St., N. Y.

Bells, Locomotive—
Bevin Bros. Mfg. Co., East Hampton, Ct.
E. W. Vanduzen Co., Cincinnati, O.

Bells, Milkman's—
Bevin Bros. Mfg. Co., East Hampton, Ct.
Bells, Pneumatic Call—
W. R. Ostrander & Co., 22 Dey St., N. Y.

Bells, Ship and Signal—
Bevin Bros. Mfg. Co., East Hampton, Ct.
E. W. Vanduzen Co., Cincinnati, O.

Bells, Sleigh and Team—
American Ring Co., Waterbury, Ct.
Bevin Bros. Mfg. Co., East Hampton, Ct.

Bells, Tea and Call—
Bevin Bros. Mfg. Co., East Hampton, Ct.
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

John H. Graham & Co., 113 Chambers St., New York.

Landers, Frary & Clark, New Britain, Ct.
Frank Mossberg Co., Attleboro, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Taplin Mfg. Co., New Britain, Ct.
E. W. Vanduzen Co., Cincinnati, O.

Bells, Telephone and Clock—
American Tube & Stamping Co., Bridgeport, Ct.

Bevin Bros. Mfg. Co., East Hampton, Ct.
Bridgeport Brass Co., 253 Broadway, N.Y.
H. A. Matthews Mfg. Co., Seymour, Ct.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Bells, Toy—
(See Toy Bells.)
Bells, Trip Gong—
Bevin Bros. Mfg. Co., East Hampton, Ct.

Bells, Turkey—
Bevin Bros. Mfg. Co., East Hampton, Ct.

Belt Awns, Couplings, &c.—
(See Awns, Couplings, &c.)
Belt Conveyor Trippers—
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Interstate Engineering Co., Bedford, O.

Belt Dressing—
Jos. Dixon Crucible Co., Jersey City, N. J.
Main Belting Co., 1219 Carpenter St., Philadelphia, Pa.

Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.
Chas. A. Schieren & Co., 37 Ferry St., New York.

Belt Lacing, Leather and Rawhide—
Fairbanks Co., 416 Broome St., New York.
New York Leather Belting Co., 51 Beekman St., New York.

Chas. A. Schieren & Co., 37 Ferry St., N.Y.
Walter A. Zelnicker Supply Co., St. Louis.

Belt Lacing Machines—
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

Belt Lacing, Steel—
(See Hooks, Belt; Fasteners, Belt.)

Belt Shifters—

Builders Iron Foundry, Providence, R. I.
Case Mfg. Co., Columbus, O.
Chandler & Farquhar Co., Boston, Mass.
Geo. V. Cresson Co., 18th St., & Allegheny Ave., Philadelphia, Pa.
Postge Mfg. Co., Mishawaka, Ind.
Mason Regulator Co., Boston, Mass.
Pratt & Whitney Co., Hartford, Ct.
T. B. Wood's Sons Co., Chambersburg, Pa.

Belt Tighteners—
American Tool & Machine Co., Boston.
Billings & Spencer Co., Hartford, Ct.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
Case Mfg. Co., Columbus, O.
Charter Gas Engine Co., Sterling, Ill.
Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.
Dodge Mfg. Co., Mishawaka, Ind.
Goodell-Pratt Co., Greenfield, Mass.
Jones & Laughlin Steel Co., Pittsburgh.
Lane Mfg. Co., Montpelier, Vt.
Poole Engineering & Machine Co., Baltimore, Md.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
Wickes Bros., Saginaw, Mich.
T. B. Wood's Sons Co., Chambersburg, Pa.

Belters, Engine—
Sattley Stacker Co., Indianapolis, Ind.

Belting, Canvas and Duck—
Ames Sword Co., Chicopee, Mass.
Case Mfg. Co., Columbus, O.

Gandy Belting Co., Baltimore, Md.
Main Belting Co., 1219-1235 Carpenter St., Philadelphia, Pa.

New York Leather Belting Co., 51 Beekman St., New York.

Belting Cement—
(See Cement, Belting.)
Belting, Chain—
Buhl Malleable Co., Detroit, Mich.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Dodge Mfg. Co., Mishawaka, Ind.
Interstate Engineering Co., Bedford, O.

Jeffrey Mfg. Co., Columbus, O.
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Stanley Works, New Britain, Ct.

MERCHANTS—
Case Mfg. Co., Columbus, O.
Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.

Wickes Bros., Saginaw, Mich.
C. G. Wormer Machinery Co., Detroit, Mich.

Belting, Conveyor, Wire—
Clinton Wire Cloth Co., Clinton, Mass.

Belting, Leather—
Fairbanks Co., 416 Broome St., New York.
New York Leather Belting Co., 51 Beekman St., New York.

Republic Belting & Supply Co., Cleveland, O.
Chas. A. Schieren & Co., 37 Ferry St., N.Y.

Belting, Link—
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Buhl Malleable Co., Detroit, Mich.
H. W. Caldwell & Co., Louisville, Ky.
Dodge Mfg. Co., Mishawaka, Ind.

Fairbanks Co., 416 Broome St., New York.

Interstate Engineering Co., Bedford, O.
 Jeffrey Mfg. Co., Columbus, O.
 Link-Belt Engineering Co., Nicetown,
 Philadelphia, Pa.

Chas. A. Schieren & Co., 37 Ferry St., N.Y.
 Whitman & Barnes Mfg. Co., Chicago.

MERCHANTS.

H. W. Caldwell & Son Co., Western Ave.
 and 17th St., Chicago, Ill.
 Case Mfg. Co., Columbus, O.
 Wickes Bros., Saginaw, Mich.
 C. C. Wormer Machinery Co., Detroit,
 Mich.

Belting, Rubber—

Fairbanks Co., 416 Broome St., New York
 New York Belting & Packing Co., 91-93
 Chambers St., New York.
 The Republic Belting & Supply Co.,
 Cleveland, O.
 Robins Conveying Belt Co., 17-22 Park
 Row, New York.
 The Republic Belting & Supply Co.,
 Cleveland, O.

Belts, Conveying—

Buhl Mallick Co., Detroit, Mich.
 H. W. Caldwell & Son Co., Western
 Ave. & 17th St., Chicago, Ill.
 Interstate Engineering Co., Bedford, O.
 Link-Belt Engineering Co., Nicetown,
 Philadelphia, Pa.
 Main Belting Co., 1219 Carpenter St.,
 Philadelphia, Pa.
 Robins Conveying Belt Co., 17-22 Park
 Row, New York.

Belts, Polishing—

(See Buffing and Polishing Machines.)

Bench Lathes, Stops, &c.—

(See Lathes, Stops, &c.)

Bench Leg Castings—

(See Castings, Bench Leg.)

Benches, Carpenters' Work—

American Tool Chest Co., 200 West Hous-
 ton St., New York.
 Oliver Machinery Co., Grand Rapids,
 Mich.

Benches, Circular Saw—

Badger State Machine Co., Janesville,
 Wis.
 Kimball Bros. & Sprague, Boston, Mass.
 Oliver Machinery Co., Grand Rapids,
 Mich.

MERCHANTS.

Hill, Clarke & Co., Boston, Mass.
 C. O. Wormer Machinery Co., Detroit,
 Mich.

Benches, Draw—

(See Draw Benches.)

Benches, Folding—

Bethlehem Foundry & Machine Co., So.
 Bethlehem, Pa.

Benches, Hydraulic Draw—

(See Draw Benches, Hydraulic.)

Benches, Machinists' Work—

Fairbanks Co., 416 Broome St., New York.

Benches, Plumbers', Port- able—

Vanderman Plumbing & Heating Co.,
 Willimantic, Ct.

Benches, Scrapers'—

F. E. Reed & Co., Worcester, Mass.

Benches, Tub and Wringer—

National Sweeper Co., Marion, Ind.

Udell Works, Indianapolis, Ind.

Benders, Lead Pipe—

Vanderman Plumbing & Heating Co.,
 Willimantic, Ct.

Benders, Bicycle Spoke—

(See Spoke Headers and Benders, Bicycle.)

Benders, Pipe, Wire—

Cleveland Wire Spring Co., Cleveland, O.
 Wm. D. Gibson Co., Huron and Kings-
 bury Sts., Chicago, Ill.
 Raymond Mfg. Co., Corry, Pa.

Benders, Rail—

Bethlehem Foundry & Machine Co., South
 Bethlehem, Pa.
 Espen-Lucas Machine Works, Broad and
 Noble Sts., Philadelphia, Pa.
 Hilles & Jones Co., Wilmington, Del.
 Long & Allstatler Co., Hamilton, O.
 Quincy, Manchester, Sargent Co., Old
 Colony Bldg., Chicago, Ill.
 Sheffield Car Co., Three Rivers, Mich.
 Solid Steel Tool & Forge Co., Tarentum,
 Pa.
 Watson-Stillman Co., 46 Dey St., N. Y.
 Walter A. Zelnicker Supply Co., St.
 Louis, Mo.

MERCHANTS.

Carlin Machinery & Supply Co., Inc.,
 Allegheny, Pa.
 Fairbanks Co., 416 Broome St., New York.
 Irving Mfg. & Tool Co., 157 Chambers St.,
 New York.
 W. K. Kenly Co., First National Bank
 Bldg., Chicago, Ill.
 Joseph T. Ryerson & Son, 18-22 Milwau-
 kee Ave., Chicago, Ill.
 Scully Steel & Iron Co., 69 N. Halsted
 St., Chicago, Ill.
 Stiles-Morse Co., Western Union Bldg.,
 Chicago, Ill.

Benders, Tire—

Bethlehem Foundry & Machine Co., South
 Bethlehem, Pa.
 Boynton & Plummer, Worcester, Mass.
 Buffalo Forge Co., Buffalo, N. Y.
 Champion Blower & Forge Co., Lancaster,
 Pa.

Defiance Machine Works, Defiance, O.

Kinsley Iron & Machine Co., Canton, Mass.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Wiley & Russell Mfg. Co., Greenfield,
 Mass.

Bending and Forming Iron

and Steel, to Order—

W. J. Clark Co., Salem, O.

Bending Machines—

(See Forming and Bending Machines.)

Bending Machines, Angle

and Eye—

Fischer Foundry & Machine Co., Pitts-
 burgh, Pa.

Bending Machines, Hy- draulic—

Bertsch & Co., Cambridge City, Ind.

Niles-Bement-Pond Co., 111 Broadway,
 New York.

Watson-Stillman Co., 46 Dey St., N. Y.

Wickes Bros., Saginaw, Mich.

Williams, White & Co., Moline, Ill.

Bending Machines, Hy- draulic Rail—

Niles-Bement-Pond Co., 111 Broadway,
 New York.

Quincy, Manchester, Sargent Co., Old
 Colony Bldg., Chicago, Ill.

Watson-Stillman Co., 46 Dey St., N. Y.

Bending Machines, Rim,

Hound, Bow, Hame and

Sled Runner—

Defiance Machine Works, Defiance, O.

Nazel Engineering & Machine Works,
 Ridge Ave. & 11th St., Philadelphia.

Bending Machines, Tube—
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Watson-Stillman Co., 46 Dey St., N. Y.

Bends, Wrought Iron, for Steam Plants—

Harrishurg Pipe & Pipe Bending Co., Harrishurg, Pa.

National Pipe Bending Co., New Haven, Ct.

Whitlock Coil Pipe Co., Hartford, Ct.

Bent Riflers—

(See Riflers, Bent.)

Berry Bowls, Dishes—

(See Bowls, Dishes.)

Berry Washers—

(See Kitchen Articles, Wire.)

Bessemer Coppered Rods—

(See Rods, Bessemer, Coppered.)

Beveling Shears—

(See Shears, Beveling.)

Bevels—

Athol Machine Co., Athol, Mass.

Boston Gear Works, Boston, Mass.

Brown & Sharpe Mfg. Co., Providence, E. I.

Chapin-Stephens Co., Pine Meadow, Ct.

Henry Diston & Sons, Philadelphia, Pa.

Fawcus Machine Co., Pittsburgh, Pa.

New Process Raw Hide Co., Syracuse, N. Y.

Stanley Rule & Level Co., New Britain, Ct.

L. S. Starrett Co., Athol, Mass.

Bicycle Bells, Forgings—

(See Bells, Forgings, &c.)

Bicycle Chain Bars—

Finished Steel Co., Youngstown, O.

Jones & Laughlin Steel Co., Pittsburgh.

Bicycle Chain, Parts for—

Finished Steel Co., Youngstown, O.

Bicycle Chains—

(See Chains, Bicycle.)

Bicycle Coaster Brakes—

(See Brakes, Coaster, Bicycle.)

Bicycle Lamps—

(See Lamps, Bicycle.)

Bicycle Machinery—

Adriance Machine Works, Brooklyn, N. Y.

Bickford Drill & Tool Co., Cincinnati, O.

Billings & Spencer Co., Hartford, Ct.

Blake & Johnson, Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.

Fox Machine Co., Grand Rapids, Mich.

Garvin Machine Co., Spring and Varick Sts., New York.

Hartford Machine Screw Co., Hartford, Ct.

Hocter Mfg. Co., Freeport, Ill.

Manning, Maxwell & Moore, 85 Liberty St., New York.

J. J. McCabe, 14 Dey St., New York.

New Haven Mfg. Co., New Haven, Ct.

Niles-Bement-Pond Co., 111 Broadway, N. Y.

Pratt & Whitney Co., Hartford, Ct.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

MERCHANTS.

George E. Affleck, 107 Liberty St., N. Y.

W. P. Davis Mach. Co., Rochester, N. Y.

Fairbanks Co., 416 Broome St., New York.

Hannan & Finton Co., Springfield, Mass.

McClerman & Orr, Monadnock Block, Chicago, Ill.

Marshall & Hushart Machinery Co., 62-64 So. Canal St., Chicago, Ill.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

Stiles-Morse Co., Western Union Bldg., Chicago, Ill.

C. C. Wormer Machinery Co., Detroit, Mich.

Bicycle Parts—

American Tube & Stamping Co., Bridgeport, Ct.

Ames Sword Co., Chicopee, Mass.

Avery Stamping Co., Cleveland, O.

Billings & Spencer Co., Hartford, Ct.

Crosby Co., Buffalo, N. Y.

Hartford Machine Screw Co., Hartford, Ct.

Indianapolis Drop Forging Co., Indianapolis, Ind.

John R. Keim Mills, Buffalo, N. Y.

Keystone Drop Forge Works, Chester, Pa.

Leban & Bishop Co., New Haven, Ct.

John S. Leng's Son & Co., 33 Murray St., New York.

H. A. Matthews Mfg. Co., Seymour, Ct.

Parker Wire Goods Co., Worcester, Mass.

Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.

Richmond Forgings Corporation, Richmond, Va.

Standard Welding Co., Cleveland, O.

Strieby & Foote Co., Newark, N. J.

Sturges & Burn Mfg. Co., Chicago, Ill.

Turner Brass Works, 44 North Franklin St., Chicago, Ill.

Wire Goods Co., Worcester, Mass.

Bicycle Tires—

(See Tires, Bicycle.)

Bicycles and Sundries—

John S. Leng's Son & Co., 33 Murray New York.

National Sewing Machine Co., Belvidere, Ill.

Sturges & Burn Mfg. Co., Chicago, Ill.

Bilge Pumps—

(See Pumps, Ship and Deck.)

Bill Binders—

(See Binders, Bill, Letter, &c.)

Billets, Open Hearth—

Allegheny Steel Co., Pittsburgh, Pa.

American Tube & Stamping Co., Bridgeport, Ct.

Carnegie Steel Co., Pittsburgh, Pa.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Billets, Steel—

Allegheny Steel Co., Pittsburgh, Pa.

American Tube & Stamping Co., Bridgeport, Ct.

Carnegie Steel Co., Pittsburgh, Pa.

Central Iron & Steel Co., Harrisburg, Pa.

Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.

Inland Steel Co., First National Bank Bldg., Chicago, Ill.

Jones & Laughlin Steel Co., Pittsburgh, Pa.

La Belle Iron Works, Steubenville, O.

Republic Iron & Steel Co. Stock Exchange Bldg., Chicago, Ill.

Washburn Wire Co., Phillipsdale, R. I.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngtown Sheet & Tube Co., Youngtown, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.

Cabeen & Co., Real Estate Trust Bldg., Philadelphia, Pa.

- Caine & Plitt, Real Estate Trust Bldg., Philadelphia, Pa.
 Justice Cox, Jr., & Co., Ltd., Land Title Bldg., Philadelphia, Pa.
 Denman & Davis, 85-87 John St., N. Y.
 Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.
 J. H. Hillman & Son, Pittsburgh, Pa.
 C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.
 Jerome Kaeley & Co., 431 Chestnut St., Philadelphia, Pa.
 W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.
 J. Tatnall Lea & Co., 19 So. 12th St., Philadelphia, Pa.
 N. Lilienberg, Betz Bldg., Philadelphia.
 A. Milne & Co., 1 Broadway, New York.
 Phillips-Lafratte Co., Pennsylvania Bldg., Philadelphia, Pa.
 Filling & Crane, Girard Bldg., Philadelphia, Pa.
 Potts & Wittman, North American Bldg., Philadelphia, Pa.
 Frank Samuel, 15th & Market Sts., Philadelphia, Pa.
 W. P. Snyder & Co., Pittsburgh, Pa.
 E. H. Wilson & Co., 112 No. Broad St., Philadelphia, Pa.
- Billiard Table Bolts and Cushions—**
 (See Bolts, Billiard Table.)
- Binder Twine—**
 (See Twine, Binder.)
- Binders, Corn Shock—**
 Vandergrift Mfg. Co., Shelbyville, Ind.
- Binders, Log—**
 Lane Mfg. Co., Montpelier, Vt.
- Binding Chain—**
 (See Chain.)
- Binding, Trunk—**
 J. H. Sessions & Son, Bristol, Ct.
- Binnacles—**
 Keuffel & Esser Co., 127 Fulton St., N. Y.
 Riggs & Bro., 310 Market St., Philadelphia, Pa.
- Bins, Nail—**
 W. J. Clark Co., Salem, O.
 J. D. Warren Mfg. Co., Chicago, Ill.
- Bins, Steel—**
 Davis Mfg. Co., Milwaukee, Wis.
 Merritt & Co., 1024-1028 Ridge Ave., Philadelphia, Pa.
- Bird Cage Hooks, Springs—**
 (See Hooks, Springs.)
- Bird Cages—**
 (See Cages, Bird and Animal.)
- Bit and Square Levels—**
 (See Levels, Bit and Square.)
- Bit Braces, Gauges, &c.—**
 (See Braces, Gauges, &c.)
- Bit Stocks, Angle Boring—**
 John S. Fray & Co., Bridgeport, Ct.
 Millers Falls Co., 24 Warren St., N. Y.
- Bits, Bell Hangers', Electricians'—**
 Cleveland Twist Drill Co., Cleveland, O.
 Forest City Bit & Tool Co., Rockford, Ill.
 Greenlee Bros. & Co., Rockford, Ill.
 H. H. Mayhew Co., Shelburne Falls, Mass.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
 Snell Mfg. Co., Fiskdale, Mass.
 Standard Tool Co., Cleveland, O.
 Whitman & Barnes Mfg. Co., Chicago.
- Bits, Brace, Boring Machine, &c.—**
 (See Augers and Bits.)
- Bits, Bridge—**
 Kilborn & Bishop Co., New Haven, Ct.
- Bits, Broom Handle—**
 H. H. Mayhew Co., Shelburne Falls, Mass.
- Bits, Countersink—**
 Forest City Bit & Tool Co., Rockford, Ill.
 Greenlee Bros. & Co., Rockford, Ill.
 Kilborn & Bishop Co., New Haven, Ct.
 H. H. Mayhew Co., Shelburne Falls, Mass.
 Job T. Pugh, 31st and Ludlow Sts., Philadelphia, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
 Snell Mfg. Co., Fiskdale, Mass.
 Standard Tool Co., Cleveland, O.
 Vaughan & Bushnell Mfg. Co., Chicago.
 Whitman & Barnes Mfg. Co., Chicago.
- Bits, Expansive—**
 R. H. Brown Co., New Haven, Ct.
 Connecticut Valley Mfg. Co., Center Brook, Ct.
 John H. Graham & Co., 113 Chambers St., New York.
 C. E. Jennings & Co., 42 Murray St., N.Y.
 Kilborn & Bishop Co., New Haven, Ct.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
 Tower & Lyon Co., 95 Chambers St., New York.
- Bits, Hollow Chisel—**
 Cleveland Lock Co., Cleveland, O.
 Forest City Bit & Tool Co., Rockford, Ill.
 Irwin Auger Bit Co., Wilmington, O.
 Job T. Pugh, 31st and Ludlow Sts., Philadelphia, Pa.
- Bits, Hub Boring—**
 Defiance Machine Works, Defiance, O.
 Forest City Bit & Tool Co., Rockford, Ill.
 Greenlee Bros. & Co., Rockford, Ill.
 Irwin Auger Bit Co., Wilmington, O.
 Standard Tool Co., Cleveland, O.
- Bits, Machine Wood—**
 Ford Auger Bit Co., Holyoke, Mass.
 Forest City Bit & Tool Co., Rockford, Ill.
 Lincoln-Williams Twist Drill Co., Taunton, Mass.
 Oliver Machinery Co., Grand Rapids, Mich.
 Job T. Pugh, 31st and Ludlow Sts., Philadelphia, Pa.
 Standard Tool Co., Cleveland, O.
 Whitman & Barnes Mfg. Co., Chicago.
- Bits, Mortising—**
 Grand Rapids Hardware Co., Grand Rapids, Mich.
- Bits, Pod—**
 H. H. Mayhew Co., Shelburne Falls, Mass.
 Snell Mfg. Co., Fiskdale, Mass.
- Bits, Routing—**
 Greenlee Bros. & Co., Rockford, Ill.
- Bits, Screw Driver—**
 Charles Buck Edge Tool Co., Millbury, Mass.
 Connecticut Valley Mfg. Co., Center Brook, Ct.
 Ducharmes & Co., Shelburne Falls, Mass.
 Ford Auger Bit Co., Holyoke, Mass.
 Goodell-Pratt Co., Greenfield, Mass.
 John H. Graham & Co., 113 Chambers St., New York.
 Irwin Auger Bit Co., Wilmington, O.
 Keystone Drop Forge Works, Chester, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 H. H. Mayhew Co., Shelburne Falls, Mass.

Miller Falls Co., 28 Warren St., N. Y.
Peck, Stow & Wilcox Co., 77 Murray St.,
New York.

Russell & Erwin Mfg. Co., 43-47 Cham-
bers St., New York.

Smith & Hemenway Co., 108-110 Duane St.,
New York.

Snell Mfg. Co., Fiskdale, Mass.

Standard Tool Co., Cleveland, O.

Tuck Mfg. Co., Brockton, Mass.

Vaughan & Bushnell Mfg. Co., Chicago.

Whitman & Barnes Mfg. Co., Chicago.

Bits, Square Boring—
(See Bits, Hollow Chisel.)

Bits, Tree Tapping—
Ford Auger Bit Co., Holyoke, Mass.

H. B. Mayberry Co., Shelburne Falls, Mass.

Black Plate for Tinning—
(See Plate, Black, for Tinning.)

Blackboards, Children's—
Maine Mfg. Co., Nashua, N. H.

Blacking Box Holders—
(See Holders, Blacking Box.)

**Blacksmiths' Bellows, Buf-
fers, &c.—**
(See Bellows, Buffers, &c.)

Blacksmiths' Tools—
Acme Machinery Co., Cleveland, O.

American Die & Tool Co., Reading, Pa.

Badger State Machine Co., Janesville,
Wis.

Bethlehem Foundry & Machine Co., South
Bethlehem, Pa.

Buffalo Forge Co., Buffalo, N. Y.

Chicago Scale Co., 232-236 Jackson Boule-
vard, Chicago, Ill.

Gooden-Pratt Co., Greenfield, Mass.

Heller Bros. Co., Newark, N. J.

Hilles & Jones Co., Wilmington, Del.

Niles-Bement-Pond Co., Ill Broadway,
New York.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reese Co., Greenfield, Mass.

Solid Steel Tool & Forge Co., Tarentum,
Pa.

Vaughan & Bushnell Mfg. Co., Chicago.

**Blades and Handles, Exten-
sion Knife—**
Dane, Stoddard & Co., Boston, Mass.

Blades, Butcher Saw—
John Chatillon & Sons, 85 Cliff St., N. Y.

Henry Diston & Sons, Philadelphia, Pa.

Goodell-Pratt Co., Greenfield, Mass.

Massachusetts Saw Works, Chicopee,
Mass.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

H. G. Thompson & Son Co., New Haven,
Ct.

Blades, Doctor—
Henry Diston & Sons, Philadelphia, Pa.

National Saw Co., Newark, N. J.

Blades, Fan Blower, Steel—
Avery Stamping Co., Cleveland, O.

Blades, Gin Roller—
Henry Diston & Sons, Philadelphia, Pa.

Blades, Metal Shear—
American Die & Tool Co., Reading, Pa.

Badger State Machine Co., Janesville,
Wis.

E. W. Bliss Co., Brooklyn, N. Y.

Henry Diston & Sons, Philadelphia, Pa.

Heppenstall Forge & Knife Co., Pitts-
burgh, Pa.

Hilles & Jones Co., Wilmington, Del.

John Loyd Co., 558 Water St., New York.

Niagara Machine & Tool Works, Buffalo,
N. Y.

George A. Ohl & Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

L. & I. J. White Co., Buffalo, N. Y.

**Blades, Plain and Corru-
gated Saw—**
Carnegie Steel Co., Pittsburgh, Pa.

Blades, Saw, Hack, &c.—
(See Saws, Hack, &c.)

**Blades, Saw, Stone and
Marble—**
Carnegie Steel Co., Pittsburgh, Pa.

**Blanking and Forming,
Sheet Metal—**
(See Stamping, Sheet Metal.)

Blanks, Cutter—
(See Cutter Blanks, Milling.)

Blanks, Gear—
Case Mfg. Co., Columbus, O.

Erie Forge Co., Erie, Pa.

Kilborn & Bishop Co., New Haven, Ct.

Tindell-Morris Co., Eddystone, Pa.

W. & S. Mfg. Co., Worcester, Mass.

Blanks, Gear, Steel—
Worcester Steel Foundry Co., Worcester,
Mass.

Blanks, Pinion—
Erie Forge Co., Erie, Pa.

Blanks, Saw Blade—
Henry Diston & Sons, Philadelphia, Pa.

Blanks, Snap Gauge—
Billings & Spencer Co., Hartford, Ct.

Blanks, Sprocket—
W. & S. Mfg. Co., Worcester, Mass.

Blanks, Thumb Nut—
Billings & Spencer Co., Hartford, Ct.

Keystone Drop Forge Works, Chester, Pa.

Whitman & Barnes Mfg. Co., Akron, O.

J. H. Williams & Co., Brooklyn, N. Y.

Blanks, Thumb Screw—
Billings & Spencer Co., Hartford, Ct.

Keystone Drop Forge Works, Chester, Pa.

Whitman & Barnes Mfg. Co., Akron, O.

J. H. Williams & Co., Brooklyn, N. Y.

**Blast Furnace Casting Ma-
chines—**
(See Casting Machines, Blast Furnace.)

Blast Furnace Machinery—
Allentown Rolling Mills, Allentown, Pa.

Atlas Car & Mfg. Co., Cleveland, O.

Interstate Engineering Co., Bedford, O.

Mesta Machine Co., Pittsburgh, Pa.

Pennsylvania Engineering Works, New
Castle, Pa.

Wm. Rod Co., Youngstown, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

Blast Gates—
(See Gates, Blast.)

**Blind Adjusters, Fasteners,
Hinges—**
(See Adjusters, Fasteners, Hinges.)

Blind Awning Fixtures—
(See Awning Fixtures, Blind.)

Blind Workers—
(See Workers, Shutter.)

Block Scrapers, Butchers'—
(See Scrapers, Butchers' Block.)

Blocking, Adjustable—
Wm. G. Le Count, South Norwalk, Ct.

Blocks, Blast Furnace—
M. D. Valentine & Bro. Co., Woodbridge,
N. J.

Blocks, Ceiling—
E. B. Estes & Sons, 4-11 John St., N. Y.

Blocks, Deck and Snatch—

Boston & Lockport Block Co., Boston.
 A. Leschen & Sons Rope Co., St. Louis.
 W. & J. Tiebout, 118 Chambers St., N. Y.
 Union Hardware Co., Torrington, Ct.

Blocks, Differential Pulley—

Boston & Lockport Block Co., Boston.
 Broderick & Bascom Rope Co., St. Louis.
 Chisholm & Moore Mfg. Co., Cleveland, O.

Alfred Field & Co., 93 Chambers St., N. Y.

A. Leschen & Sons Rope Co., St. Louis.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

D. Round & Son, Cleveland, O.

Scully Steel & Iron Co., 69 N. Halsted

St., Chicago, Ill.

Yale & Towne Mfg. Co., 9-15 Murray St.,

New York.

Blocks, Granite Cutters' Winding—

Trow & Holden, Barre, Vt.

Blocks, Hoisting—

Boston & Lockport Block Co., Boston.
 Broderick & Bascom Rope Co., St. Louis.
 C. W. Hunt Co., West New Brighton,

N. Y.

A. Leschen & Sons Rope Co., St. Louis.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Union Hardware Co., Torrington, Ct.

Blocks, Keyseating Rule—

Massachusetts Tool Co., Greenfield, Mass.

Blocks, Levelling—

Wiley & Russell Mfg. Co., Greenfield,

Mass.

Blocks, Locomotive—

A. Leschen & Sons Rope Co., St. Louis.

Ostrander Fire Brick Co., Troy, N. Y.

Blocks, Log Loading—

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

Blocks, Pillow—

Bancroft & Co., Fifth & Chestnut Sta.,

Philadelphia, Pa.

Broderick & Bascom Rope Co., St. Louis.

Buhl Malleable Co., Detroit, Mich.

H. W. Caldwell & Son Co., Western Ave.

and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Columbia Bridge Co., Pittsburgh, Pa.

Geo. V. Cresson Co., 18th St. & Alle-

gheny Ave., Philadelphia, Pa.

Prodee Mfg. Co., Mishawaka, Ind.

Fairbanks Co., 416 Broome St., New York.

Jeffrey Mfg. Co., Columbus, O.

Jones & Laughlin Steel Co., Pittsburgh.

A. Leschen & Sons Rope Co., St. Louis.

Robins Conveying Belt Co., 17-22 Park

Row, New York.

Wm. Sellers & Co. (Inc.), Philadelphia.

Standard Car & Foundry Co., Pittsburgh,

Pa.

Wickes Bros., Saginaw, Mich.

T. B. Wood's Sons Co., Chambersburg,

Pa.

Blocks, Pin, Fire Door or

Shutter—

Lane Bros. Co., Poughkeepsie, N. Y.

Blocks, Steel—

Boston & Lockport Block Co., Boston.

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

Union Hardware Co., Torrington, Ct.

Blocks, Sware—

Kinsley Iron & Machine Co., Canton,

Mass.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Wells Bros. Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield,

Mass.

Blocks, Tackle—

Boston & Lockport Block Co., Boston.

Broderick & Bascom Rope Co., St. Louis.

Buhl Malleable Co., Detroit, Mich.

Lane Bros. Co., Poughkeepsie, N. Y.

A. Leschen & Sons Rope Co., St. Louis.

Rhode Island Tool Co., Providence, R. I.

W. & J. Tiebout, 118 Chambers St., N. Y.

Union Hardware Co., Torrington, Ct.

Blocks, Wire Rope—

Boston & Lockport Block Co., Boston.

Broderick & Bascom Rope Co., St. Louis.

Union Hardware Co., Torrington, Ct.

Blooming Mills—

Lewis Foundry & Machine Co., Pitts-

burgh, Pa.

Rolls Machine Co., Pittsburgh, Pa.

Morgan Construction Co., Worcester,

Mass.

Pennsylvania Engineering Works, New

Castle, Pa.

Philadelphia Roll & Machine Co., 23d

St. & Washington Ave., Philadelphia.

William Tod Co., Youngstown, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

Blooms, Charcoal—

Carnegie Steel Co., Pittsburgh, Pa.

La Belle Iron Works, Steubenville, O.

MERCHANTS—

J. H. Hillman & Son, Pittsburgh, Pa.

N. Lillienberg, Betz Bldg., Philadelphia,

Pa.

J. Wesley Pullman, 238 S. 3d St., Phila-

delphia, Pa.

Wheeler, Mifflin & Co., Fidelity Bldg.,

Philadelphia, Pa.

Blow Off Tanks—

E. Keeler Co., Williamsport, Pa.

Charles G. Shepard, Buffalo, N. Y.

Blow Pipes, Alcohol and

Gasoline—

Turner Brass Works, Franklin & Michi-

gan Sts., Chicago, Ill.

Blow Pipes, Dental—

Turner Brass Works, Franklin & Michi-

gan Sts., Chicago, Ill.

Blower Stands—

(See Stands, Blower.)

Blowers—

American Blower Co., Detroit, Mich.

Boston Blower Co., Hyde Park, Mass.

Buffalo Forge Co., Buffalo, N. Y.

Champion Blower & Forge Co., Lancas-

ter, Pa.

Connersville Blower Co., Connersville, Ind.

J. B. & J. M. Cornell Co., 26th St. & 11th

Ave., New York.

De Laval Steam Turbine Co., Trenton,

N. J.

Exeter Machine Works, Exeter, N. H.

Fairbanks Co., 416 Broome St., New York.

Green Fuel Economizer Co., Matteawan,

N. Y.

McClave-Brooks Co., Scranton, Pa.

Monarch Engineering & Mfg. Co., Balti-

more, Md.

J. D. Smith Foundry Supply Co., Cleve-
land, O.
Stirling Blower & Pipe Mfg. Co., Hart-
ford, Ct.
B. F. Sturtevant Co., Boston, Mass.

MERCHANTS.
Carlin Machinery & Supply Co., Inc.,
Allegheny Pa.
Hannan & Finton, Springfield, Mass.
A. V. Kaiser & Co., 222 S. Third St.,
Philadelphia, Pa.
S. Obermayer Co., Cincinnati, O.
Patterson, Gottfried & Hunter, Ltd., 146-
150 Centre St., New York.
H. A. Rogers Co., 19 John St., New York.
Joseph T. Ryerson & Son, 18-22 Milwaukee
Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and
Wayman Sts., Chicago, Ill.
Frank Toomey, 127-131 No. 3d St., Phil-
adelphia, Pa.
Jacob Ullman, Buffalo, N. Y.
Wicks Bros., Saginaw, Mich.
C. C. Wormer Machinery Co., Detroit,
Mich.

Blowers, Electric—
American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Jas. Clark, Jr., & Co., Louisville, Ky.
General Electric Co., Schenectady, N. Y.
Green Fuel Economizer Co., Matteawan,
N. Y.
Northern Electrical Mfg. Co., Madison,
Wis.
Scully Steel & Iron Co., 69 N. Halsted
St., Chicago, Ill.
Sprague Electric Co., 527 W. 34th St.,
New York.
B. F. Sturtevant Co., Boston, Mass.
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Blowers, Pressure—
American Blower Co., Detroit, Mich.
American Gas Furnace Co., 23 John St.,
New York.
Bethlehem Foundry & Machine Co.,
South Bethlehem, Pa.
Boston Blower Co., Hyde Park, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster,
Pa.
Chicago Flexible Shaft Co., 124 La Salle
Ave., Chicago, Ill.
Connorsville Blower Co., Connorsville, Ind.
De Laval Steam Turbine Co., Trenton,
N. J.
Exeter Machine Works, Exeter, N. H.
Fairbanks Co., 416 Broome St., New York.
Green Fuel Economizer Co., Matteawan,
N. Y.
S. Obermayer Co., Cincinnati, O.
J. D. Smith Foundry Supply Co., Cleve-
land, O.
B. F. Sturtevant Co., Boston, Mass.

MERCHANTS.
Scully Steel & Iron Co., Halsted and
Wayman Sts., Chicago, Ill.
C. C. Wormer Machinery Co., Detroit,
Mich.

Blowers, Steam Jet—
Eynon-Evans Mfg. Co., 1517 Clearfield
St., Philadelphia, Pa.
McClave-Brooks Co., Scranton, Pa.

Board, Asbestos Mill—
H. W. Johnson, Manville Co., 190 William
St., New York.

Board Bill Clips—
(See Clips, Bill, Letter, &c., Board.)

Board Rules—
(See Rules, Board.)

Boards, Bread and Pastry—
Hud. Dryer Co., Worcester, Mass.
Udell Works, Indianapolis, Ind.

Boards, Corner—
(See Architectural Sheet Metal Work.)

Boards, Drawing—
Keuffel & Esser Co., 127 Fulton St., N. Y.

Boards, Glass—
Larkin Rule Co., Saginaw, Mich.

Boards, Ironing—
Hill Dryer Co., Worcester, Mass.
Udell Works, Indianapolis, Ind.

Boards, Knife—
Udell Works, Indianapolis, Ind.

Boards, Lap—
Udell Works, Indianapolis, Ind.

Boat Anchors, Hooks, &c.—
(See Anchors, Hooks, &c.)

Boats, Sail—
John M. Rogers Boat, Gauge & Drill
Works, Gloucester City, N. J.

Boats, Sectional Row—
A. S. Morris Co., Boston, Mass.

Bob Factory Machinery,
Paper—
Hobbs Mfg. Co., Worcester, Mass.

Bobbing—
E. B. Estes & Sons, 45-47 John St., N. Y.

Bobs, Plumb—
Brown & Sharpe Mfg. Co., Providence,
R. I.

Henry Diaston & Sons, Philadelphia, Pa.
Keuffel & Esser Co., 127 Fulton St.,
New York.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers
St., New York.

Stanley Rule & Level Co., New Brit-
ain, Ct.

L. S. Starrett Co., Athol, Mass.
Tower & Lyon Co., 95 Chambers St.,
New York.

Wrightsville Hardware Co., Wrightsville,
Pa.

Bogie Rollers—
Bethlehem Foundry & Machine Co., So.
Bethlehem, Pa.

Boiler Brace Iron—
(See Iron, Boiler Brace.)

Boiler Braces, Pressed—
Lukens Iron & Steel Co., Coatesville, Pa.

Boiler Cleaners—
(See Cleaners, Flue.)

Boiler Compounds—
(See Compounds, Boiler.)

Boiler Coverings—
(See Coverings, Boiler and Pipe.)

Boiler Drill Furnaces, &c.—
(See Drills, Furnaces, &c.)

Boiler Feeders, Low Pres-
sure—

Walworth Mfg. Co., Boston, Mass.

Boiler Fronts—
S. Freeman & Sons Mfg. Co., Racine,
Wis.

E. Keeler Co., Williamsport, Pa.
Rock River Mfg. Co., Dixon, Ill.

Scully Steel & Iron Co., 69 N. Halsted
St., Chicago, Ill.

Struthers, Wells & Co., Warren, Pa.

- Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
 Walworth Mfg. Co., Boston, Mass.
MERCHANTS.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Boiler Handles—
 (See Tinner's Trimmings.)
Boiler Heads—
 (See Heads, Flanged and Dished Boiler.)
Boiler Makers' Tools—
 American Die & Tool Co., Reading, Pa.
 Badger State Machine Co., Janesville, Wis.
 Bertsch & Co., Cambridge City, Ind.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Richard Dudgeon, 24-26 Columbia St., New York.
 Fischer Foundry & Machine Co., Pittsburgh, Pa.
 Gem Mfg. Co., Pittsburgh, Pa.
 A. L. Henderer's Sons, Wilmington, Del.
 Hilles & Jones Co., Wilmington, Del.
 J. J. McCabe, 14 Day St., New York.
 New Doty Mfg. Co., Janesville, Wis.
 Niles-Bement-Bond Co., 111 Broadway, New York.
 Pratt & Whitney Co., Hartford, Ct.
 Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
 Solid Steel Tool & Forge Co., Pittsburgh, Pa.
 Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
MERCHANTS.
 Geo. E. Affleck, 107 Liberty St., N. Y.
 J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 Fairbanks Co., 416 Broome St., New York.
 Hill, Clarke & Co., Boston, Mass.
 Manning, Maxwell & Moore, 85 Liberty St., New York.
 Marshall & Husehart Machinery Co., 62-64 So. Canal St., Chicago, Ill.
 Prentiss Tool & Supply Co., 115 Liberty St., New York.
 H. A. Rogers Co., 19 John St., New York.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
 Stiles-Morse Co., Western Union Bldg., Chicago, Ill.
 Thornton Machinery Co., Providence, R. I.
 Wickes Bros., Saginaw, Mich.
 C. C. Wormer Machinery Co., Detroit, Mich.
Boiler Shells, Automobile—
 Wm. B. Scaife & Sons Co., Pittsburgh.
Boilers, Automobile—
 Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
Boilers, House, Copper—
 E. B. Badger & Sons Co., Boston, Mass.
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
Boilers, House, Galvanized—
 Wm. B. Scaife & Sons Co., Pittsburgh.
Boilers, Portable—
 S. Freeman & Sons Mfg. Co., Racine, Wis.
 Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.
 E. Keeler Co., Williamsport, Pa.
MERCHANTS.
 A. V. Kaiser & Co., 222 S. Third St., Philadelphia, Pa.
 C. C. Wormer Machinery Co., Detroit, Mich.
Boilers, Seamless Drawn Steel House—
 Pressed Steel Tank Co., Milwaukee, Wis.
Boilers, Steam—
 Lambcock & Wilcox Co., 85 Liberty St., New York.
 Barry & Zecher Co., Lancaster, Pa.
 Thos. Carlin's Sons, Allegheny, Pa.
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.
 East Jersey Pipe Co., Paterson, N. J.
 Exeter Machine Works, Exeter, N. H.
 Franklin Boiler Works Co., Troy, N. Y.
 S. Freeman & Sons Mfg. Co., Racine, Wis.
 Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.
 E. Keeler Co., Williamsport, Pa.
 Lidgerwood Mfg. Co., 96 Liberty St., New York.
 Lord & Burnham Co., Irvington-on-Hudson, N. Y.
 Mehan Boiler & Construction Co., Lowellville, O.
 R. S. Newbold & Son Co., Norristown, Pa.
 Newport News Ship Building & Dry Dock Co., Newport News, Va.
 Parker Boiler Co., Pennsylvania Bldg., Philadelphia, Pa.
 F. K. Patch Mfg. Co., Rutland, Vt.
 Riter-Conley Mfg. Co., Pittsburgh, Pa.
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
 Standard Car & Foundry Co., Pittsburgh, Pa.
 Stirling Consolidated Boiler Co., 111 Broadway, New York.
 Struthers, Wells & Co., Warren, Pa.
 Tudor Boiler Mfg. Co., Cincinnati, O.
 Vilter Mfg. Co., Milwaukee, Wis.
 Warren City Tank & Boiler Works, Warren, O.
 Robert Wetherill & Co., Chester, Pa.
 Wickes Bros., Saginaw, Mich.
MERCHANTS.
 Charles Behlen, 72 Trinity Pl., New York.
 Carlin Machinery & Supply Co., Inc., Allegheny, Pa.
 Cleveland Belting & Machinery Co., Cleveland, O.
 John W. Cole, Providence, R. I.
 Columbus Equipment Co., Columbus, O.
 Thomas P. Conard & Co., 119 S. 4th St., Philadelphia, Pa.
 Wm. F. Davis Machine Co., Rochester, N. Y.
 Charles E. Dustin Co., 11 Broadway, New York.
 Barclay M. Everson, Pittsburgh, Pa.
 Hannan & Finton Co., Springfield, Mass.
 I. C. Hirsch Iron, Steel & Rail Co., Cincinnati, O.
 Huntington Machinery & Supply Co., Wilkes-Barre, Pa.
 A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.
 Lovegrove & Co., Inc., 143-145 N. 3d St., Philadelphia, Pa.
 McDowell & Co., Allegheny, Pa.
 Geo. A. McLean & Co., Pittsburgh, Pa.
 F. E. Pannmueller & Co., First National Bank Bldg., Chicago, Ill.
 F. A. Rosenthal, Davenport, Ia.
 Rossiter, McGovern & Co., 141 Broadway, New York.

Scully Steel & Iron Co., Halsted and
Wayman Sts., Chicago, Ill.

L. F. Seyfert's Sons, 437-441 No. 3d St.,
Philadelphia, Pa.

Charles G. Shepard, Buffalo, N. Y.
Shook & Fletcher, Birmingham, Ala.

Thompson-Bonney Co., Brooklyn, N. Y.
Frank Toomey, 127-131 No. 3d St., Phila-
delphia, Pa.

Jacob Ullman, Buffalo, N. Y.
Warren City Tank & Boiler Works, War-
ren, O.

E. O. Williams, 63 So. Canal St., Chi-
cago, Ill.

C. Wormer Machine Co., Detroit,
Mich.

Yearley & Levene, 305 N. 3d St., Phila-
delphia, Pa.

**Boilers, Steam and Hot Wa-
ter—**

Baum Separator & Machine Co., Man-
heim, Pa.

Exeter Machine Works, Exeter, N. H.
E. Keefer Co., Williamsport, Pa.

Lord & Burnham Co., Irvington-on-Hud-
son, N. Y.

National Pipe Bending Co., New Ha-
ven, Ct.

Wm. B. Scaife & Sons Co., Pittsburgh.

Standard Car & Foundry Co., Pittsburgh,
Pa.

Boilers, Tubular Heating—

S. Freeman & Sons Mfg. Co., Racine,
Wis.

Boilers, Wash—

E. B. Badger & Sons Co., Boston, Mass.

Bolster Plates—
(See Plates, Bolster.)

Bolt and Nut Machinery—

Acme Machinery Co., Cleveland, O.

Ajax Mfg. Co., Cleveland, O.

Badger State Machine Co., Janesville,
Wis.

Blake & Johnson, Waterbury, Ct.

Boynton & Plummer, Worcester, Mass.

H. B. Brown & Co., East Hampton, Ct.

Detrick & Harvey Machine Co., Balti-
more, Md.

Fairbanks Co., 416 Broome St., New York.

Hartford Machine Screw Co., Hartford, Ct.

Howard Iron Works, Buffalo, N. Y.

National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 111 Broadway, N. Y.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

Standard Engineering Co., Ellwood City,
Pa.

Standard Machinery Co., Bowling Green,
O.

Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Water & Perks Tool Co., Springfield, O.

Wells Bros. Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield,
Mass.

Williams Tool Co., Erie, Pa.

MERCHANTS

Geo. E. Affleck, 105 Liberty St., N. Y.

Baird Machinery Co., Pittsburgh, Pa.

J. H. Dawson Machinery Co., 39-41 S.
Canal St., Chicago, Ill.

Hill, Clarke & Co., Boston, Mass.

Manning, Maxwell & Moore, 55 Liberty
St., New York

Marshall & Hushart Machinery Co., 62-
64 So. Canal St., Chicago, Ill.

McDowell, Stocker & Co., 59 S. Canal
St., Chicago, Ill.

Motch & Merryweather Machinery Co.,
Cleveland, O.

Prentiss Tool & Supply Co., 115 Liberty
St., New York.

H. A. Rogers Co., 19 John St., New York.

Thornton Machinery Co., Providence, R. I.

Vandyke, Churchill Co., 8 Dey St., N. Y.

C. O. Wormer Machinery Co., Detroit,
Mich.

Bolt Copper, Cutters, &c.—
(See Copper, Cutters, &c.)

Bolt Ends—

American Iron & Steel Mfg. Co., Leb-
anon, Pa.

Clark Bros. Bolt Co., Milldale, Ct.

Samuel Hall's Sons, 229-233 W. 10th St.,
New York

Wm. H. Haskell Mfg. Co., Pawtucket,
R. I.

M. Lanz & Sons, Pittsburgh, Pa.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Pittsburgh Screw & Bolt Co., Pittsburgh.

Republic Iron & Steel Co., Chicago, Ill.

Russell, Burdall & Ward Bolt & Nut
Co., Port Chester, N. Y.

St. Louis Screw Co., St. Louis, Mo.

Upson Nut Co., Cleveland, O.

**Bolt Head Milling Ma-
chines—**

(See Nut and Bolt Head Milling Ma-
chines.)

Bolt Head Trimmers—
(See Trimmers, Bolt Head.)

Bolt Iron—

American Iron & Steel Mfg. Co., Leb-
anon, Pa.

Interstate Iron & Steel Co., First Nat'l
Bank Bldg., Chicago, Ill.

Iron & Steel Co., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted
St., Chicago, Ill.

MERCHANTS

Bourne-Fuller Co., Cleveland, O.

C. B. Houston & Co., Girard Bldg., Phila-
delphia, Pa.

Bolt Keys—
(See Keys, Nail, Bolt, Nut, &c.)

**Bolt Machinery, Stove and
Carriage—**

Acme Machinery Co., Cleveland, O.

Blake & Johnson, Waterbury, Ct.

E. J. Manville Machine Co., Waterbury,
Ct.

National Machinery Co., Tiffin, O.

Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Williams Tool Co., Erie, Pa.

Bolt Pointing Machines—

Acme Machinery Co., Cleveland, O.

Detrick & Harvey Machine Co., Balti-
more.

National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Standard Machinery Co., Bowling Green, O.

Bolt Wire—
(See Wire, Bolt.)

Bolts, Agricultural—

Clark Bros. Bolt Co., Milldale, Ct.

Wm. H. Haskell Mfg. Co., Pawtucket,
R. I.

M. Lanz & Sons, Pittsburgh, Pa.

New Castle Forge & Bolt Co., New Cas-
tle, Pa.

- Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Republic Iron & Steel Co., Chicago, Ill.
- Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
- Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
- Upson Nut Co., Cleveland, O.
- Bolts, Anchor or Toggle—**
- American Iron & Steel Mfg. Co., Lebanon, Pa.
- Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
- Isaac Church, Toledo, O.
- Diamond Expansion Bolt Co., 9-15 Murray St., New York.
- Fort Pitt Forge Co., Pittsburgh, Pa.
- Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
- M. Lanz & Sons, Pittsburgh, Pa.
- New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
- Pittsburgh Screw & Bolt Co., Pittsburgh.
- Ritter-Conley Mfg. Co., Pittsburgh, Pa.
- Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
- J. D. Smith Foundry Supply Co., Cleveland, O.
- Star Expansion Bolt Co., 147-149 Cedar St., New York.
- Bolts, Barn Door—**
- Arcade Mfg. Co., Freeport, Ill.
- Enterprise Mfg. Co., Philadelphia, Pa.
- M. Lanz & Sons, Pittsburgh, Pa.
- Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Bolts, Billiard Table—**
- Boston Bolt Co., Boston, Mass.
- Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
- Shelton Co., Shelton, Ct.
- Bolts, Blank—**
- American Iron & Steel Mfg. Co., Lebanon, Pa.
- Clark Bros. Bolt Co., Milldale, Ct.
- Garland Nut & Rivet Co., Pittsburgh, Pa.
- Samuel Hall's Sons, 229-233 W. 10th St., New York.
- Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
- M. Lanz & Sons, Pittsburgh, Pa.
- National Bolt & Nut Company, Pittsburgh, Pa.
- New Castle Forge & Bolt Co., New Castle, Pa.
- Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Pittsburgh Mfg. Co., Pittsburgh, Pa.
- Pittsburgh Screw & Bolt Co., Pittsburgh.
- Republic Iron & Steel Co., Chicago, Ill.
- Rhode Island Tool Co., Providence, R. I.
- St. Louis Screw Co., St. Louis, Mo.
- Upson Nut Co., Cleveland, O.
- Bolts, Boiler Patch—**
- American Iron & Steel Mfg. Co., Lebanon, Pa.
- Chicago Screw Co., 2 No. Canal St., Chicago, Ill.
- Cleveland Cap Screw Co., Cleveland, O.
- Samuel Hall's Sons, 229-233 W. 10th St., New York.
- Hartford Machine Screw Co., Hartford, Ct.
- Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
- Pittsburgh Screw & Bolt Co., Pittsburgh.*
- Rhode Island Tool Co., Providence, R. I.*
- St. Louis Screw Co., St. Louis, Mo.*
- Worcester Machine Screw Co., Worcester, Mass.*
- Bolts, Boiler Stay—**
- American Iron & Steel Mfg. Co., Lebanon, Pa.
- Falls Hollow Staybolt Co., Cuyahoga Falls, O.
- Sam'l Hall's Sons, 229-233 West 10th St., New York.
- Hartford Machine Screw Co., Hartford, Ct.
- Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
- M. Lanz & Sons, Pittsburgh, Pa.
- Lockhart Iron & Steel Co., Pittsburgh.
- Pittsburgh Mfg. Co., Pittsburgh, Pa.
- Pittsburgh Screw & Bolt Co., Pittsburgh.
- Republic Iron & Steel Co., Chicago, Ill.
- St. Louis Screw Co., St. Louis, Mo.
- Bolts, Brass and Bronze—**
- American Iron & Steel Mfg. Co., Lebanon, Pa.
- Clark Bros. Bolt Co., Milldale, Ct.
- Cleveland Cap Screw Co., Cleveland, O.
- Eymon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.
- Samuel Hall's Sons, 229-233 W. 10th St., New York.
- Hartford Machine Screw Co., Hartford, Ct.
- Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
- U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
- Kilborn & Bishop Co., New Haven, Ct.
- Ohio Nut & Bolt Co., Berea, O.
- Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
- Steward & Romaine Mfg. Co., Philadelphia, Pa.
- W. & J. Tiebout, 118 Chambers St., N. Y.
- Waterbury Brass Co., Waterbury, Ct.
- Bolts, Bridge and Roof—**
- American Iron & Steel Mfg. Co., Lebanon, Pa.
- Berlin Construction Co., Berlin, Ct..
- Boston Bolt Co., Boston, Mass.
- Carnegie Steel Co., Pittsburgh, Pa.
- Fort Pitt Forge Co., Pittsburgh, Pa.
- Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
- Jones & Laughlin Steel Co., Pittsburgh.
- M. Lanz & Sons, Pittsburgh, Pa.
- National Bolt & Nut Co., Pittsburgh, Pa.
- New Castle Forge & Bolt Co., New Castle, Pa.
- Pittsburgh Mfg. Co., Pittsburgh, Pa.
- Pittsburgh Screw & Bolt Co., Pittsburgh.
- Republic Iron & Steel Co., Chicago, Ill.
- Lewis F. Shoemaker & Co., Harrison Bldg., Philadelphia, Pa.
- Titusville Forge Co., Titusville, Pa.
- Upson Nut Co., Cleveland, O.
- Bolts, Carriage—**
- American Iron & Steel Mfg. Co., Lebanon, Pa.
- Atlas Bolt & Screw Co., Cleveland, O.
- Boston Bolt Co., Boston, Mass.
- Clark Bros. Bolt Co., Milldale, Ct.
- Cobb & Drew, Plymouth, Mass.
- Falls Rivet & Machine Co., Cuyahoga Falls, O.
- Garland Nut & Rivet Co., Pittsburgh, Pa.
- Graham Nut Co., Pittsburgh, Pa.
- Hubbard & Sons, Pittsburgh, Pa.
- M. Lanz & Sons, Pittsburgh, Pa.
- McCabe-Hansen Mfg. Co., 425-427 W. 25th St., New York.
- Franklin Moore Co., Winsted, Ct.
- National Bolt & Nut Co., Pittsburgh, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Republic Iron & Steel Co., Chicago, Ill.
Russell, Burdall & Ward Bolt & Nut Co., Fort Chester, N. Y.
St. Louis Screw Co., St. Louis, Mo.
Shelton Co., Shelton, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Copper—
Cleveland Cap Screw Co., Cleveland, O.
Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Kilborn & Bishop Co., New Haven, Ct.

Bolts, Countersunk—
 (See Bolts, Special, &c.)

Bolts, Coupling—
 (See Bolts, Special.)

Bolts, Cultivator and Guard
Clark Bros. Bolt Co., Milldale, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Cupboard—
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Bolts, Dash—
Clark Bros. Bolt Co., Milldale, Ct.
Franklin Moore Co., Winsted, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Door—
Arcade Mfg. Co., Freeport, Ill.
Columbia Grey Iron Co., Columbia, Pa.
Fanner Mfg. Co., Cleveland, O.
Griffin Mfg. Co., Erie, Pa.
H. B. Ives Co., New Haven, Ct.
Ney Mfg. Co., Canton, O.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Shelby Spring Hinge Co., Shelby, O.
Stanley Works, New Britain, Ct.
Taylor & Boggis Foundry Co., Cleveland, O.
A. C. Williams, Ravenna, O.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Bolts, Double Awning—
M. Lanz & Sons, Pittsburgh, Pa.

Bolts, Drift—

(See Spikes, Dock, Wharf, &c.)

Bolts, Elevator Bucket—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Avery Stamping Co., Cleveland, O.
Buhl Malleable Co., Detroit, Mich.
Clark Bros. Bolt Co., Milldale, Ct.
W. J. Clark Co., Salem, O.
Cobb & Drew, Plymouth, Mass.
Samuel Hall's Sons, 229-233 W. 10th St., New York.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Republic Iron & Steel Co., Chicago, Ill.
Upson Nut Co., Cleveland, O.

Bolts, Expansion, Single and Double—

Boston Bolt Co., Boston, Mass.
Brohard Co., Hutchinson St. and Columbia Ave., Philadelphia, Pa.
Isaac Church, Toledo, O.
Diamond Expansion Bolt Co., 9-15 Murray St., New York.
F. H. Evans, Brooklyn, N. Y.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.
McCabe Hanger Mfg. Co., 425-427 W. 26th St., New York.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
Richards Mfg. Co., Aurora, Ill.
A. O. Seaman, 1638 Hutchinson St., Philadelphia, Pa.
Star Expansion Bolt Co., 147-149 Cedar St., New York.
Steward & Romaine Mfg. Co., Philadelphia, Pa.

Bolts, Extension—
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Bolts, Eye—
American Bridge Co. of New York, 42 Broadway, New York.
American Iron & Steel Mfg. Co., Lebanon, Pa.

Billings & Spencer Co., Hartford, Ct.
Boston Bolt Co., Boston, Mass.
Bradlee & Co., Beach St. & E. Susquehanna Ave., Philadelphia, Pa.
Clark Bros. Bolt Co., Milldale, Ct.
Samuel Hall's Sons, 229-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Keystone Drop Forge Works, Chester, Pa.
M. Lanz & Sons, Pittsburgh, Pa.

A. S. Morris Co., Boston, Mass.
National Bolt & Nut Co., Pittsburgh, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.
Parker Wire Goods Co., Worcester, Mass.
Republic Iron & Steel Co., Chicago, Ill.
Rhode Island Tool Co., Providence, R. I.
St. Louis Screw Co., St. Louis, Mo.
Solid Steel Tool & Forge Co., Tarentum, Pa.

Strieby & Foot Co., Newark, N. J.
W. & J. Tiebout, 118 Chambers St., N. Y.
Titusville Forge Co., Titusville, Pa.
Transue & Williams Co., Alliance, O.
Upson Nut Co., Cleveland, O.
Vaughan & Bushnell Mfg. Co., Chicago.
J. H. Williams & Co., Brooklyn, N. Y.
Wire Goods Co., Worcester, Mass.

Bolts, Fancy (Cone, Steeple, Elliptic, Thread, Body

Loop, &c.)—

Clark Bros. Bolt Co., Milldale, Ct.
Franklin Moore Co., Winsted, Ct.
Rhode Island Tool Co., Providence, R. I.
Upson Nut Co., Cleveland, O.
 (See also Bolts, Special.)

Bolts, Forged—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Boston Bolt Co., Boston, Mass.
Clark Bros. Bolt Co., Milldale, Ct.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
M. Lanz & Sons, Pittsburgh, Pa.
National Bolt & Nut Co., Pittsburgh, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Republic Iron & Steel Co., Chicago, Ill.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Upson Nut Co., Cleveland, O.

Bolts, Anchor or Toggle—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Isaac Church, Toledo, O.

Diamond Expansion Bolt Co., 9-15 Murray St., New York.

Fort Pitt Forge Co., Pittsburgh, Pa.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Pittsburgh Screw & Bolt Co., Pittsburgh.
Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
J. D. Smith Foundry Supply Co., Cleveland, O.

Star Expansion Bolt Co., 147-149 Cedar St., New York.

Bolts, Barn Door—
Arcade Mfg. Co., Freeport, Ill.
Enterprise Mfg. Co., Philadelphia, Pa.

M. Lanz & Sons, Pittsburgh, Pa.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Bolts, Billiard Table—
Boston Bolt Co., Boston, Mass.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Shelton Co., Shelton, Ct.

Bolts, Blank—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Clark Bros. Bolt Co., Milldale, Ct.
Garland Nut & Rivet Co., Pittsburgh, Pa.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.

National Bolt & Nut Company, Pittsburgh, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Pittsburgh Screw & Bolt Co., Pittsburgh.

Republic Iron & Steel Co., Chicago, Ill.

Rhode Island Tool Co., Providence, R. I.

St. Louis Screw Co., St. Louis, Mo.

Upson Nut Co., Cleveland, O.

Bolts, Boiler Patch—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Chicago Screw Co., 2 No. Canal St., Chicago, Ill.

Cleveland Cap Screw Co., Cleveland, O.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

Hartford Machine Screw Co., Hartford, Ct.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Pittsburgh Screw & Bolt Co., Pittsburgh.

Rhode Island Tool Co., Providence, R. I.

St. Louis Screw Co., St. Louis, Mo.

Worcester Machine Screw Co., Worcester, Mass.

Bolts, Boiler Stay—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Falls Hollow Staybolt Co., Cuyahoga Falls, O.

Sam'l Hall's Sons, 229-233 West 10th St., New York.

Hartford Machine Screw Co., Hartford, Ct.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.

Rockhart Iron & Steel Co., Pittsburgh.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Pittsburgh Screw & Bolt Co., Pittsburgh.

Republic Iron & Steel Co., Chicago, Ill.

St. Louis Screw Co., St. Louis, Mo.

Bolts, Brass and Bronze—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Clark Bros. Bolt Co., Milldale, Ct.

Cleveland Cap Screw Co., Cleveland, O.

Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

Hartford Machine Screw Co., Hartford, Ct.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Kilborn & Bishop Co., New Haven, Ct.

Ohio Nut & Bolt Co., Berea, O.

Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.

Steward & Romaine Mfg. Co., Philadelphia, Pa.

W. & J. Tiebout, 118 Chambers St., N. Y.

Waterbury Brass Co., Waterbury, Ct.

Bolts, Bridge and Roof—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Berlin Construction Co., Berlin, Ct.

Boston Bolt Co., Boston, Mass.

Carnegie Steel Co., Pittsburgh, Pa.

Fort Pitt Forge Co., Pittsburgh, Pa.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Jones & Laughlin Steel Co., Pittsburgh.

M. Lanz & Sons, Pittsburgh, Pa.

National Bolt & Nut Co., Pittsburgh, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Pittsburgh Screw & Bolt Co., Pittsburgh.

Republic Iron & Steel Co., Chicago, Ill.

Lewis F. Shoemaker & Co., Harrison Bldg., Philadelphia, Pa.

Titusville Forge Co., Titusville, Pa.

Upson Nut Co., Cleveland, O.

Bolts, Carriage—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Atlas Bolt & Screw Co., Cleveland, O.

Boston Bolt Co., Boston, Mass.

Clark Bros. Bolt Co., Milldale, Ct.

Cobb & Drew, Plymouth, Mass.

Falls Rivet & Machine Co., Cuyahoga Falls, O.

Garland Nut & Rivet Co., Pittsburgh, Pa.

Graham Nut Co., Pittsburgh, Pa.

Hubbard & Co., Pittsburgh, Pa.

M. Lanz & Sons, Pittsburgh, Pa.

McCabe-Hanmer Mfg. Co., 425-427 W. 25th St., New York.

Franklin Moore Co., Winsted, Ct.

National Bolt & Nut Co., Pittsburgh, Pa.

Bolts, Sink—

American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, O.
Blake & Johnson, Waterbury, Ct.
Falls Rivet & Machine Co., Cuyahoga Falls, O.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
Ohio Nut & Bolt Co., Berea, O.
Republic Iron & Steel Co., Chicago, Ill.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Shelton Co., Shelton, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Sleigh Shoe—

American Screw Co., Providence, R. I.
Franklin Moore Co., Winsted, Ct.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
Republic Iron & Steel Co., Chicago, Ill.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Shelton Co., Shelton, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Socket—

American Iron & Steel Mfg. Co., Lebanon, Pa.
Samuel Hall's Sons, 229-233 W. 10th St., New York.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Bolts, Special — Coupling Screen, Deck, Hanger, Joint, Button Head, Bung Head, Boiler, Headless, Slotted Head, Hook Head, Pinch Head, Cube Head, &c.—

American Iron & Steel Mfg. Co., Lebanon, Pa.
Atlas Bolt & Screw Co., Cleveland, O.
Blake & Johnson, Waterbury, Ct.
Chicago Screw Co., 2 N. Canal St., Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Ct.
Cleveland Cap Screw Co., Cleveland, O.
Cobb & Drew, Plymouth, Mass.
Samuel Hall's Sons, 229-233 W. 10th St., New York.
Hartford Machine Screw Co., Hartford, Ct.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Franklin Moore Co., Winsted, Ct.
M. Lanz & Sons, Pittsburgh, Pa.
McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.
McCloud, Crane & Minter Co., Worcester, Mass.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
National-Acme Mfg. Co., Cleveland, O.
New Castle Forge & Bolt Co., New Castle, Pa.
Ohio Nut & Bolt Co., Berea, O.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
Rhode Island Tool Co., Providence, R. I.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
St. Louis Screw Co., St. Louis, Mo.
Titusville Forge Co., Titusville, Pa.
Upson Nut Co., Cleveland, O.

Worcester Machine Screw Co., Worcester, Mass.

Bolts, Spring, Carriage—
Clark Bros. Bolt Co., Milldale, Ct.

Bolts, Stove—

American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, O.
Boston Bolt Co., Boston, Mass.
Clark Bros. Bolt Co., Milldale, Ct.
Cobb & Drew, Plymouth, Mass.
Falls Rivet & Machine Co., Cuyahoga Falls, O.
Fanner Mfg. Co., Cleveland, O.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
Ohio Nut & Bolt Co., Berea, O.
Republic Iron & Steel Co., Chicago, Ill.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
St. Louis Screw Co., St. Louis, Mo.
Shelton Co., Shelton, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Stud—

American Iron & Steel Mfg. Co., Lebanon, Pa.
Clark Bros. Bolt Co., Milldale, Ct.
Cleveland Cap Screw Co., Cleveland, O.
Samuel Hall's Sons, 229-233 W. 10th St., New York.
Hartford Machine Screw Co., Hartford, Ct.
Win. H. Haskell Mfg. Co., Pawtucket, R. I.
M. Lanz & Sons, Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
Republic Iron & Steel Co., Chicago, Ill.
Rhode Island Tool Co., Providence, R. I.
St. Louis Screw Co., St. Louis, Mo.
Strieby & Foote Co., Newark, N. J.
Upson Nut Co., Cleveland, O.
Worcester Machine Screw Co., Worcester, Mass.

Bolts, Tap—

American Iron & Steel Mfg. Co., Lebanon, Pa.
Boston Bolt Co., Boston, Mass.
Clark Bros. Bolt Co., Milldale, Ct.
Cleveland Cap Screw Co., Cleveland, O.
Garland Nut & Rivet Co., Pittsburgh, Pa.
Samuel Hall's Sons, 229-233 W. 10th St., New York.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
M. Lanz & Sons, Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
Republic Iron & Steel Co., Chicago, Ill.
Rhode Island Tool Co., Providence, R. I.
St. Louis Screw Co., St. Louis, Mo.
Upson Nut Co., Cleveland, O.

Bolts, Tire—

American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, O.
Clark Bros. Bolt Co., Milldale, Ct.
Cobb & Drew, Plymouth, Mass.
Falls Rivet & Machine Co., Cuyahoga Falls, O.
Franklin Moore Co., Winsted, Ct.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
Ohio Nut & Bolt Co., Berea, O.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Shelton Co., Shelton, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Toggle—

(See Bolts, Anchor or Toggle.)

- Pittsburgh Mfg. Co., Pittsburgh, Pa.
 Pittsburgh Screw & Bolt Co., Pittsburgh.
 Rhode Island Tool Co., Providence, R. I.
 Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
 Titusville Forge Co., Titusville, Pa.
Bolts, Foundation—
 American Iron & Steel Mfg. Co., Lebanon, Pa.
 Belmont Iron Works, Inc., Philadelphia.
 Boston Bolt Co., Boston, Mass.
 Fort Pitt Forge Co., Pittsburgh, Pa.
 Samuel Hall's Sons, 229-233 W. 10th St., New York.
 M. Lanz & Sons, Pittsburgh, Pa.
 National Bolt & Nut Co., Pittsburgh, Pa.
 New Castle Forge & Bolt Co., New Castle, Pa.
 Pittsburgh Mfg. Co., Pittsburgh, Pa.
 Pittsburgh Screw & Bolt Co., Pittsburgh.
Bolts, Galvanized—
 American Iron & Steel Mfg. Co., Lebanon, Pa.
 Clark Bros. Bolt Co., Milldale, Ct.
 Garland Nut & Rivet Co., Pittsburgh, Pa.
 Samuel Hall's Sons, 229-233 W. 10th St., New York.
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
 M. Lanz & Sons, Pittsburgh, Pa.
 National Bolt & Nut Co., Pittsburgh, Pa.
 Republic Iron & Steel Co., Chicago, Ill.
 Rhode Island Tool Co., Providence, R. I.
 W. & J. Tiebout, 118 Chambers St., N. Y.
Bolts, Guard—
 (See Bolts, Cultivator.)
Bolts, Hollow Stay—
 Falls Hollow Staybolt Co., Cuyahoga Falls, O.
Bolts, Hook—
 American Iron & Steel Mfg. Co., Lebanon, Pa.
 Boston Bolt Co., Boston, Mass.
 Clark Bros. Bolt Co., Milldale, Ct.
 M. Lanz & Sons, Pittsburgh, Pa.
 New Castle Forge & Bolt Co., New Castle, Pa.
 Pittsburgh Mfg. Co., Pittsburgh, Pa.
 Upson Nut Co., Cleveland, O.
Bolts, King—
 American Iron & Steel Mfg. Co., Lebanon, Pa.
 E. D. Clapp Mfg. Co., Auburn, N. Y.
 Clark Bros. Bolt Co., Milldale, Ct.
 Richard Eccles Co., Auburn, N. Y.
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
 M. Lanz & Sons, Pittsburgh, Pa.
 Republic Iron & Steel Co., Chicago, Ill.
 M. Seward & Son Co., New Haven, Ct.
 Upson Nut Co., Cleveland, O.
Bolts, Loom—
 Boston Bolt Co., Boston, Mass.
 Clark Bros. Bolt Co., Milldale, Ct.
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
 Upson Nut Co., Cleveland, O.
Bolts, Machine—
 American Iron & Steel Mfg. Co., Lebanon, Pa.
 Boston Bolt Co., Boston, Mass.
 Buhl Malleable Co., Detroit, Mich.
 Clark Bros. Bolt Co., Milldale, Ct.
 Cobb & Drew, Plymouth, Mass.
 Falls Rivet & Machine Co., Cuyahoga Falls, O.
 Garland Nut & Rivet Co., Pittsburgh, Pa.
 Graham Nut Co., Pittsburgh, Pa.
 Sam'l Hall's Sons, 229-233 W. 10th St., New York.
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
 Hubbard & Co., Pittsburgh, Pa.
 M. Lanz & Sons, Pittsburgh, Pa.
 Milton Mfg. Co., Milton, Pa.
 National Bolt & Nut Co., Pittsburgh, Pa.
 New Castle Forge & Bolt Co., New Castle, Pa.
 Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
 Pittsburgh Mfg. Co., Pittsburgh, Pa.
 Pittsburgh Screw & Bolt Co., Pittsburgh.
 Rhode Island Tool Co., Providence, R. I.
 Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
 St. Louis Screw Co., St. Louis, Mo.
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
 Shelton Co., Shelton, Ct.
 Upson Nut Co., Cleveland, O.
 Worcester Machine Screw Co., Worcester, Mass.
Bolts, Planer Head—
 Chicago Screw Co., 2 N. Canal St., Chicago, Ill.
 Cleveland Cap Screw Co., Cleveland, O.
 Hartford Machine Screw Co., Hartford, Ct.
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
 McCloud, Crane & Minter Co., Worcester, Mass.
 Rhode Island Tool Co., Providence, R. I.
 St. Louis Screw Co., St. Louis, Mo.
 Worcester Machine Screw Co., Worcester, Mass.
Bolts, Plow—
 American Iron & Steel Mfg. Co., Lebanon, Pa.
 Clark Bros. Bolt Co., Milldale, Ct.
 Cobb & Drew, Plymouth, Mass.
 Falls Rivet & Machine Co., Cuyahoga Falls, O.
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
 Republic Iron & Steel Co., Chicago, Ill.
 Russell, Burdall & Ward Nut & Bolt Co., Port Chester, N. Y.
 Shelton Co., Shelton, Ct.
 Upson Nut Co., Cleveland, O.
Bolts, Reach—
 Clark Bros. Bolt Co., Milldale, Ct.
 Franklin Moore Co., Winsted, Ct.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
 Upson Nut Co., Cleveland, O.
Bolts, Ring—
 A. S. Morse Co., Boston, Mass.
 W. & J. Tiebout, 118 Chambers St., N. Y.
 Vaughan & Bushnell Mfg. Co., Chicago.
Bolts, Screen—
 American Iron & Steel Mfg. Co., Lebanon, Pa.
Bolts, Seat—
 Atlas Bolt & Screw Co., Cleveland, O.
 Clark Bros. Bolt Co., Milldale, Ct.
 Franklin Moore Co., Winsted, Ct.
 Ohio Nut & Bolt Co., Berea, O.
 Upson Nut Co., Cleveland, O.
Bolts, Shackle—
 Clark Bros. Bolt Co., Milldale, Ct.
 Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
 Upson Nut Co., Cleveland, O.
Bolts, Shutter—
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
 Stanley Works, New Britain, Ct.
 Wrightsville Hdw. Co., Wrightsville, Pa.

Bolts, Sink—

American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, O.
Blake & Johnson, Waterbury, Ct.
Falls Rivet & Machine Co., Cuyahoga Falls, O.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
Ohio Nut & Bolt Co., Berea, O.
Republic Iron & Steel Co., Chicago, Ill.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Shelton Co., Shelton, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Sleigh Shoe—

American Screw Co., Providence, R. I.
Franklin Moore Co., Winsted, Ct.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
Republic Iron & Steel Co., Chicago, Ill.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Shelton Co., Shelton, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Socket—

American Iron & Steel Mfg. Co., Lebanon, Pa.
Samuel Hall's Sons, 229-233 W. 10th St., New York.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Bolts, Special — Coupling Screen, Deck, Hanger, Joint, Button Head, Bung Head, Boiler, Headless, Slotted Head, Hook Head, Finch Head, Cube Head, &c.—

American Iron & Steel Mfg. Co., Lebanon, Pa.
Atlas Bolt & Screw Co., Cleveland, O.
Blake & Johnson, Waterbury, Ct.
Chicago Screw Co., 2 N. Canal St., Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Ct.
Cleveland Cap Screw Co., Cleveland, O.
Cobb & Drew, Plymouth, Mass.
Samuel Hall's Sons, 229-233 W. 10th St., New York.
Hartford Machine Screw Co., Hartford, Ct.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Franklin Moore Co., Winsted, Ct.
M. Lanz & Sons, Pittsburgh, Pa.
McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.
McCloud, Crane & Minter Co., Worcester, Mass.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
National-Acme Mfg. Co., Cleveland, O.
New Castle Forge & Bolt Co., New Castle, Pa.
Ohio Nut & Bolt Co., Berea, O.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh.
Rhode Island Tool Co., Providence, R. I.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
St. Louis Screw Co., St. Louis, Mo.
Titusville Forge Co., Titusville, Pa.
Upson Nut Co., Cleveland, O.

Worcester Machine Screw Co., Worcester, Mass.

Bolts, Spring, Carriage—
Clark Bros. Bolt Co., Milldale, Ct.

Bolts, Stove—

American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, O.
Boston Bolt Co., Boston, Mass.
Clark Bros. Bolt Co., Milldale, Ct.
Cobb & Drew, Plymouth, Mass.
Falls Rivet & Machine Co., Cuyahoga Falls, O.
Fanner Mfg. Co., Cleveland, O.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
Ohio Nut & Bolt Co., Berea, O.
Republic Iron & Steel Co., Chicago, Ill.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
St. Louis Screw Co., St. Louis, Mo.
Shelton Co., Shelton, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Stud—

American Iron & Steel Mfg. Co., Lebanon, Pa.
Clark Bros. Bolt Co., Milldale, Ct.
Cleveland Cap Screw Co., Cleveland, O.
Samuel Hall's Sons, 229-233 W. 10th St., New York.
Hartford Machine Screw Co., Hartford, Ct.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
M. Lanz & Sons, Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh.
Republic Iron & Steel Co., Chicago, Ill.
Rhode Island Tool Co., Providence, R. I.
St. Louis Screw Co., St. Louis, Mo.
Strieby & Foote Co., Newark, N. J.
Upson Nut Co., Cleveland, O.
Worcester Machine Screw Co., Worcester, Mass.

Bolts, Tap—

American Iron & Steel Mfg. Co., Lebanon, Pa.
Boston Bolt Co., Boston, Mass.
Clark Bros. Bolt Co., Milldale, Ct.
Cleveland Cap Screw Co., Cleveland, O.
Garland Nut & Rivet Co., Pittsburgh, Pa.
Samuel Hall's Sons, 229-233 W. 10th St., New York.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
M. Lanz & Sons, Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh.
Republic Iron & Steel Co., Chicago, Ill.
Rhode Island Tool Co., Providence, R. I.
St. Louis Screw Co., St. Louis, Mo.
Upson Nut Co., Cleveland, O.

Bolts, Tire—

American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, O.
Clark Bros. Bolt Co., Milldale, Ct.
Cobb & Drew, Plymouth, Mass.
Falls Rivet & Machine Co., Cuyahoga Falls, O.
Franklin Moore Co., Winsted, Ct.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
Ohio Nut & Bolt Co., Berea, O.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Shelton Co., Shelton, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Toggle—
(See Bolts, Anchor or Toggle.)

Bolts, Track—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Jones & Laughlin Steel Co., Pittsburgh. Arthur Koppel Co., 66-68 Broad St., New York.

M. Lanz & Sons, Pittsburgh, Pa. National Bolt & Nut Co., Pittsburgh, Pa. New Castle Forge & Bolt Co., New Castle, Pa.

Republic Iron & Steel Co., Chicago, Ill. Upson Nut Co., Cleveland, O.

MERCHANTS—

W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.

Richardson & Co., Inc., Pittsburgh, Pa. Walter A. Zelnicker Supply Co., St. Louis.

Bolts, Trunk and Sample Case—

B. C. Jenkinson & Co., Newark, N. J. J. H. Sessions & Son, Bristol, Ct.

Bolts, U—

St. Louis Screw Co., St. Louis, Mo.

Bolts, Water Closet, Indicator—

Columbia Hardware Co., Cleveland, O.

Heading Hardware Co., Reading, Pa. Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Bolts, Whiffletree—

Franklin Moore Co., Watert. Ct.

Upson Nut Co., Cleveland, O.

Bolts, Window Spring—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Bolts, Window, Ventilating—

H. B. Ives Co., New Haven, Ct.

Bonds, Rail—

General Electric Co., Schenectady, N. Y.

Morgan Spring Co., Worcester, Mass.

Ohio Brass Co., Mansfield, O.

Worcester Steel Foundry Co., Worcester, Mass.

Bone, Case Hardening—

S. Obermayer Co., Cincinnati, O.

J. W. Faxon Co., Philadelphia, Pa.

Rogers Mfg. Co., Rockfall, Ct.

Bone Mills—

(See Mills, Bone.)

Book Binders' Machinery—

R. H. Brown & Co., New Haven, Ct.

Sigourney Tool Co., Hartford, Ct.

Book Binder Wire—

(See Wire, Bottling, Book Binder, &c.)

Book, Paper and Card Racks—

(See Racks, Card, Book and Paper.)

Books—

David Williams Co., 14-16 Park Place, New York.

Books, Loose Leaf and Price—

David Williams Co., 14-16 Park Place, New York.

Books, Weight Ticket—

Standard Scale & Supply Co., Pittsburgh.

Boom Travelers—

(See Travelers, Boom and Deck.)

Booster Sets, Electric—

C. & C. Electric Co., Garwood, N. J. Jas. Clark, Jr., & Co., Louisville, Ky.

General Electric Co., Schenectady, N. Y. National Electric Co., Milwaukee, Wis. Northern Electrical Mfg. Co., Madison, Wis.

Boot Calks, Jacks—

(See Calks, Jacks.)

Boots and Sewer Connections—

Berger Mfg. Co., Canton, O.

Edwards Mfg. Co., Cincinnati, O.

Goff, Homer & Co., Pittsburgh, Pa.

Boots, Elevator—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Interstate Engineering Co., Bedford, O.

Grey Mfg. Co., Columbus, O.

Boots, Interfering—

Covert Mfg. Co., Troy, N. Y.

Borers, Bore Hole—

Chas. F. Elmes Engineering Works, Cor. Morgan and Fulton Sts., Chicago, Ill.

Enterprise Mfg. Co., Philadelphia, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Borers, Counter—

Cleveland Twist Drill Co., Cleveland, O.

E. F. Reece Co., Greenfield, Mass.

Boring and Facing Machines, Duplex Pump—

Niles-Bement-Pond Co., 111 Broadway, New York.

Boring and Turning Mills—

(See Mills, Boring and Turning.)

Boring and Turning Mills, Steel Tire—

Retts Machine Co., Wilmington, Del.

Niles-Bement-Pond Co., 111 Broadway, New York.

Boring Bars—

Charles F. Elmes Engineering Works, 253 Fulton St., Chicago, Ill.

Niles-Bement-Pond Co., 111 Broadway, New York.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Boring Bars for Lathe Work—

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

H. B. Underwood & Co., 1925 Hamilton St., Philadelphia, Pa.

Boring Bars for Locomotive Cylinder—

Niles-Bement-Pond Co., 111 Broadway, New York.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Wm. Sellers & Co. (Inc.), Philadelphia.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

H. B. Underwood & Co., 1925 Hamilton St., Philadelphia, Pa.

Boring Bars for Locomotive Cylinders, Portable—

Niles-Bement-Pond Co., 111 Broadway, New York.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

- H. B. Underwood & Co.**, 1025 Hamilton St., Philadelphia, Pa.
- Boring Machines, Car Box—**
Detrick & Harvey Mch. Co., Baltimore, Md.
Niles-Bement-Pond Co., 111 Broadway, New York.
- Boring Machines, Car Wheel—**
Rickford Drill & Tool Co., Cincinnati, O.
Fairbanks Co., 416 Broome St., New York.
Niles-Bement-Pond Co., 111 Broadway, New York.
Wm. Sellers & Co. (Inc.), Philadelphia.
- Boring Machines, Carpenters—**
Fox Machine Co., Grand Rapids, Mich.
Millers Falls Co., 28 Warren St., N. Y.
Oliver Machinery Co., Grand Rapids, Mich.
Smith & Hemenway Co., 108-110 Duane St., New York.
Snell Mfg. Co., Fiskdale, Mass.
- Boring Machines, Cylinder—**
Rickford Drill & Tool Co., Cincinnati, O.
Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.
Niles-Bement-Pond Co., 111 Broadway, New York.
Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
Wm. Sellers & Co. (Inc.), Philadelphia.
Stow Flexible Shaft Co., 26th and Callow-hill Sts., Philadelphia, Pa.
H. B. Underwood & Co., 1025 Hamilton St., Philadelphia, Pa.
- Boring Machines, Electricians, and Plumbers—**
Ford Auger Bit Co., Holyoke, Mass.
- Boring Machines, Gang—**
Defiance Machine Works, Defiance, O.
Greenlee Bros. & Co., Rockford, Ill.
Niles-Bement-Pond Co., 111 Broadway, New York.
- Boring Machines, Hub—**
(See Hub Boring Machines.)
- Boring Machines, Locomotive—**
Epen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.
Niles-Bement-Pond Co., 111 Broadway, New York.
Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
- Boring Machines, Man Hole—**
Ingersoll-Rand Co., 11 Broadway, New York.
Niles-Bement-Pond Co., 111 Broadway, New York.
- Boring Machines, Sash and Blind—**
Grand Rapids Hardware Co., Grand Rapids, Mich.
Stow Flexible Shaft Co., 26th & Callow-hill Sts., Philadelphia, Pa.
- Boring Machines, Wood—**
Badger Machine Co., Janesville, Wis.
Defiance Machine Works, Defiance, O.
Fox Machine Co., Grand Rapids, Mich.
Greenlee Bros. & Co., Rockford, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.
Oliver Machinery Co., Grand Rapids, Mich.
- Boring Tools, Metal and Wood—**
Armstrong Bros. Tool Co., Chicago, Ill.
Goodell Mfg. Co., Greenfield, Mass.
Hill-Standard Mfg. Co., Anderson, Ind.
Keystone Mfg. Co., Buffalo, N. Y.
Millers Falls Co., 28 Warren St., N. Y.
- Botanizing Drums—**
(See Drums, Botanizing.)
- Bottle Holders, Champagne—**
(See Holders, Bottle, Silver Plated.)
- Bottles, Steel—**
Avery Stamping Co., Cleveland, O.
National Tube Co., Pittsburgh, Pa.
Standard Welding Co., Cleveland, O.
- MERCHANTS,**
C. G. Eckstein, 249 Centre St., New York.
Janney, Steinhmetz & Co., Drexel Bldg., Philadelphia, Pa.
McClernan & Orr, Monadnock Block, Chicago, Ill.
- Bottling Machinery—**
Vilter Mfg. Co., Milwaukee, Wis.
- Bottling Wire—**
(See Wire, Bottling, Book Binder, &c.)
- Bower Barf Finishing—**
Winslow Bros. Co., 235 W. Harrison St., Chicago, Ill.
- Bowls, Berry, Fruit, Ice Sugar, &c., Silver Plated—**
International Silver Co., 9-13 Maiden Lane, New York.
- Bowls, Cream Separator—**
Standard Welding Co., Cleveland, O.
- Bowls, Forged Separator—**
Avery Stamping Co., Cleveland, O.
- Strieby & Foote Co., Newark, N. J.**
- Bowls, Scotch, Steel—**
Avery Stamping Co., Cleveland, O.
- Bows, Ox—**
American Fork & Hoe Co., Cleveland, O.
- Box Board Sawing and Finishing Machinery—**
Badger State Machine Co., Janesville, Wis.
Peter Gerlach Co., Cleveland, O.
Humphrey Machine Co., Keene, N. H.
- Box Chisels, &c.—**
(See Chisels, Box.)
- Box Factory Machinery—**
Hobbs Mfg. Co., Worcester, Mass.
Humphrey Machine Co., Keene, N. H.
- MERCHANTS,**
Wickes Bros., Saginaw, Mich.
- Box Factory Machinery, Paper—**
Hobbs Mfg. Co., Worcester, Mass.
- Boxes and Jars, Cigar, Silver Plated—**
International Silver Co., 9-13 Maiden Lane, New York.
- Boxes, Adjustable Shaft—**
Mechanics' Machine Co., Rockford, Ill.
- Boxes, Annealing—**
Meehan Boiler & Construction Co., Lowellville, O.
- Boxes, Auger Bit—**
E. B. Estes & Sons, 45-47 John St., N. Y.
Tower & Lyon Co., 95 Chambers St., New York.
- Boxes, Axe—**
E. B. Estes & Sons, 45-47 John St., N. Y.
- Boxes, Bait—**
Clark, Horrocks Co., Utica, N. Y.
- Louis E. Bechtin & Bro.**, Cincinnati, O.

- Boxes, Ball Bearing Shafting—**
Pressed Steel Mfg. Co., Ridge Ave. and Willow St., Philadelphia, Pa.
- Boxes, Bill and Change—**
Merriam Mfg. Co., Durham, Ct.
- Boxes, Cash and Bond—**
Merriam Mfg. Co., Durham, Ct.
- Boxes, Coal—**
W. J. Clark Co., Salem, O.
- Boxes, Farrier Tool—**
Wells Bros. Co., Greenfield, Mass.
- Boxes, Feed—**
(See Mangers.)
- Boxes, Fishing Tackle—**
Clark, Horrocks Co., Utica, N. Y.
- Boxes, Galvanized Steel Storage—**
Stirling Blower & Pipe Mfg. Co., Hartford, Ct.
- Boxes, Glove, Match, Powder, Soap, Stamp, &c., Silver Plated—**
International Silver Co., 9-13 Maiden Lane, New York.
- Boxes, Grain Dump—**
Louden Machinery Co., Fairfield, Ia.
- Boxes, Knocked Down—**
(See Shooks, Box.)
- Boxes, Letter—**
Kilbourne Mfg. Co., Troy, N. Y.
- Boxes, Lock—**
Reading Hardware Co., Reading, Pa.
- Boxes, Lock Corner—**
Yale & Towne Mfg. Co., 9-15 Murray St., New York.
- Boxes, Mail—**
Yale & Towne Mfg. Co., 9-15 Murray St., New York.
- Boxes, Mail, Rural—**
Johnson Mfg. Co., Urbana, O.
- Boxes, Mailing—**
E. B. Estes & Sons, 45-47 John St., N. Y.
- Boxes, Match, Aluminum—**
Scovill Mfg. Co., Waterbury, Ct.
- Boxes, Miter—**
Goodell Mfg. Co., Greenfield, Mass.
- Boxes, Miter—**
C. E. Jennings & Co., 42 Murray St., New York.
- Boxes, Miter—**
Millers Falls Co., 28 Warren St., N. Y.
- Boxes, Miter—**
Nicholls Mfg. Co., Ottumwa, Ia.
- Boxes, Miter—**
Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.
- Boxes, Miter—**
Smith & Hemenway Co., 108-110 Duane St., New York.
- Boxes, Miter—**
Stanley Rule & Level Co., New Britain, Ct.
- Boxes, Miter—**
Tower & Lyon Co., 95 Chambers St., New York.
- Boxes, Nail—**
W. J. Clark Co., Salem, O.
- Boxes, Nail—**
Cleveland Wire Spring Co., Cleveland, O.
- Boxes, Oil Stone—**
E. B. Estes & Sons, 45-47 John St., N. Y.
- Boxes, Paper—**
Jesse Jones Paper Box Co., 615-617 Commerce St., Philadelphia, Pa.
- Boxes, Post Office Lock—**
Eagle Lock Co., Terryville, Ct.
- Boxes, Printed—**
Yale & Towne Mfg. Co., 9-15 Murray St., New York.
- Boxes, Roller Bearing Shaft—**
E. B. Estes & Sons, 45-47 John St., N. Y.
- Boxes, Roller Bearing Shaft—**
Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
- Boxes, Salt—**
Udell Works, Indianapolis, Ind.
- Boxes, Screw Cover—**
E. B. Estes & Sons, 45-47 John St., N. Y.
- Boxes, Shaft Bearing—**
Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
- Boxes, Shaft Bearing—**
W. E. Caldwell Co., Louisville, Ky.
- Boxes, Shaft Bearing—**
H. W. Caldwell & Son Co., Western Ave., 17th and 18th Sts., Chicago, Ill.
- Boxes, Shaft Bearing—**
Case Mfg. Co., Columbus, O.
- Boxes, Shaft Bearing—**
Falls Rivet & Machine Co., Cuyahoga Falls, O.
- Boxes, Shaft Bearing—**
Wickes Bros., Saginaw, Mich.
- Boxes, Shelf—**
Cleveland Wire Spring Co., Cleveland, O.
- Boxes, Shelf—**
E. B. Estes & Sons, 45-47 John St., N. Y.
- Boxes, Shelf—**
A. H. Green, 97-101 Warren St., N. Y.
- Boxes, Shelf—**
W. C. Heller & Co., Montpelier, O.
- Boxes, Shelf—**
Jesse Jones Paper Box Co., 615-617 Commerce St., Philadelphia, Pa.
- Boxes, Shelf—**
C. P. Moore, Ravenswood, W. Va.
- Boxes, Shelf—**
J. D. Warren Mfg. Co., Chicago, Ill.
- Boxes, Shoe Blacking—**
Louis Sacks, Newark, N. J.
- Boxes, Slide Cover—**
E. B. Estes & Sons, 45-47 John St., N. Y.
- Boxes, Small Wood Packing—**
E. B. Estes & Sons, 45-47 John St., N. Y.
- Boxes, Small Wood Packing—**
A. H. Green, 97-101 Warren St., N. Y.
- Boxes, Spark Plug—**
E. B. Estes & Sons, 45-47 John St., N. Y.
- Boxes, Steel Storage—**
Cleveland Wire Spring Co., Cleveland, O.
- Boxes, Steel Storage—**
W. J. Clark Co., Salem, O.
- Boxes, Steel Storage—**
Wm. B. Scaife & Sons Co., Pittsburgh.
- Boxes, Steel Wall—**
(See Telegraph and Telephone.)
- Boxes, Stop Cock, Extension—**
Central Foundry Co., 116 Nassau St., New York.
- Boxes, Tap—**
E. B. Estes & Sons, 45-47 John St., N. Y.
- Boxes, Telephone—**
E. B. Estes & Sons, 45-47 John St., N. Y.
- Boxes, Thimble Skein—**
(See Skeins, Thimble, and Boxes.)
- Boxes, Tin—**
Charles Mundt & Sons, 441-447 Pearl St., New York.
- Boxes, Tin—**
Republic Metalware Co., Buffalo, N. Y.
- Boxes, Tin, Office—**
Merriam Mfg. Co., Durham, Ct.
- Boxes, Tin, Paymasters—**
Merriam Mfg. Co., Durham, Ct.
- Boxes, Tin, Safe Deposit Vault—**
Merriam Mfg. Co., Durham, Ct.
- Boxes, Tin, Theatrical Make-up—**
Merriam Mfg. Co., Durham, Ct.
- Boxes, Tobacco, Aluminum—**
Scovill Mfg. Co., Waterbury, Ct.

Boxes, Tool—

Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.
W. J. Clark Co., Salem, O.
E. B. Estes & Sons, 45-47 John St., N. Y.

Boxes, Tote—

Avery Stamping Co., Cleveland, O.
W. J. Clark Co., Salem, O.
Cleveland Wire Spring Co., Cleveland, O.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Boxes, Tree—

(See Guards, Tree.)

Boxes, Turned Wood—

E. B. Estes & Sons, 45-47 John St., N. Y.

Boxes, Twine—

John Chatillon & Sons, 85-93 Cliff St., New York.
Columbia Grey Iron Co., Columbia, Pa.
Landers, Fray & Clark, New Britain, Ct.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Pleuger & Henger Mfg. Co., St. Louis, Mo.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
A. C. Williams, Ravenna, O.
Wire Goods Co., Worcester, Mass.

Boxes, Veneer—

E. B. Estes & Sons, 45-47 John St., N. Y.

Boxes, Waste, Cast Iron—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.

Boxes, Wood—

Murdock-Shaw Co., Boston, Mass.

Boxwood Rules—

(See Rules, Boxwood.)

Braces and Nail, Top—

E. D. Clapp Mfg. Co., Auburn, N. Y.

Braces, Arm—

(See Telegraph and Telephone.)

Braces, Binding, Casket—

R. C. Jenkinson & Co., Newark, N. J.

Braces, Bit—

John S. Fray & Co., Bridgeport, Ct.
Goodell-Pratt Co., Greenfield, Mass.
John H. Graham & Co., 113 Chambers St., New York.

C. E. Jennings Co., 42 Murray St., N. Y.

H. H. Mayhew & Co., Shelburne Falls, Mass.

Millers Falls Co., 28 Warren St., N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Stanley Rule & Level Co., New Britain, Ct.

Braces, Corner—

Goodell-Pratt Co., Greenfield, Mass.

Braces, Extension—

John S. Fray & Co., Bridgeport, Ct.

Millers Falls Co., 28 Warren St., N. Y.

Braces, Music Rack—

Sabin Machine Co., Montpelier, Vt.

Braces, Rudder—

W. & J. Tiebout, 113 Chambers St., N. Y.

Braces, Skate, Ankle—

Samuel Winslow Skate Mfg. Co., Worcester, Mass.

Bracket Saws—

(See Saws, Scroll.)

Brackets—

(See Architectural Sheet Metal Work.)

Brackets, Axe—

W. & J. Tiebout, 113 Chambers St., N. Y.

Brackets, Electric Flexible—

T. R. Almond Mfg. Co., Brooklyn, N. Y.

Brackets, Extension—

M. S. Brooks & Sons, Chester, Ct.

Brackets, Flower Pot—

Columbia Grey Iron Casting Co., Columbia, Pa.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Schreiber & Conchar Mfg. Co., Dubuque, Ia.

Brackets, Folding—

Griffin Mfg. Co., Erie, Pa.

Brackets, Hand Rail—

ArCADE Mfg. Co., Freeport, Ill.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Union Mfg. Co., New Britain, Ct.

Brackets, Hay Rack—

(See Clamps, Hay Rack.)

Brackets, Lamp—

ArCADE Mfg. Co., Freeport, Ill.

Bevin Bros. Mfg. Co., E. Hampton, Ct.

Columbia Grey Iron Casting Co., Columbia, Pa.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Schreiber & Conchar Mfg. Co., Dubuque, Ia.

Brackets, Office, Counter, &c.—

(See Railing and Brackets, Office, Counter, &c.)

Brackets, Piano—

Susquehanna Casting Co., Wrightsville, Pa.

Brackets, &c., Plumbing—

(See Plumbing Supplies, &c.)

Brackets, Pole—

(See Telegraph and Telephone Pole Supplies.)

Brackets, Rafter—

Louden Machinery Co., Fairfield, Ia.

F. E. Myers & Bro., Ashland, O.

Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Brackets, Roofing—

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Edwards Mfg. Co., Cincinnati, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Stanley Rule & Level Co., New Britain, Ct.

Wagner Mfg. Co., Cedar Falls, Ia.

Brackets, Shade—

Smith & Hemenway Co., 108-110 Duane St., New York.

Brackets, Shelf—

ArCADE Mfg. Co., Freeport, Ill.

Columbia Grey Iron Casting Co., Columbia, Pa.

Griffin Mfg. Co., Erie, Pa.

McKinney Mfg. Co., Allegheny, Pa.

Peck, Slow & Wilcox Co., 27 Murray St., New York.
 Plunger & Henger Mfg. Co., St. Louis, Mo.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
 Stanley Works, New Britain, Ct.
 Susquehanna Casting Co., Wrightsville, Pa.
 Wrightsville Hardware Co., Wrightsville, Pa.

Brackets, Shovel, Hoe, Rake, Fork, &c.

W. C. Heller & Co., Montpelier, O.
 Schreiber & Conchar Mfg. Co., Dubuque, Ia.

Brackets, Side and Roll.
 (See Architectural Sheet Metal Work.)

Brackets, Sink.

Central Foundry Co., 116 Nassau St., New York.

Fanner Mfg. Co., Cleveland, O.
 Griffin Mfg. Co., Erie, Pa.

Brackets, Soap.

(See Household Articles, Wire.)

Brackets, Window.

I. S. Spencer's Sons, Guilford, Ct.

Brackets, Window Screen

Corner
 Reading Hardware Co., Reading, Pa.

Brad Awls.

(See Awls, Peg, Brad, &c.)

Brads, Tacks, Finishing Nails, &c.

(See Tacks, Brads, Finishing Nails, &c.)

Braided Rope, Cotton, Linen, &c.

(See Rope, Braided, Cotton, Linen, &c.)

Brake Beams, Car.

American Steel Foundries, Fisher Bldg., Chicago, Ill.

Brake Chains, Shoes.

(See Chains, Shoes.)

Brakes, Air.

Ingersoll-Rand Co., 11 Broadway, New York.

Brakes, Bicycle.

Bevin Bros. Mfg. Co., E. Hampton, Ct.

Brakes, Coaster Bicycle.

John H. Graham & Co., 113 Chambers St., New York.

Brakes, Cornice.

Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.

J. M. Robinson Mfg. Co., Cincinnati, O.

Brands, Burning.

A. G. Butler, 234-236 Pearl St., New York.

George M. Ness, 61 Fulton St., New York.

New York Stencil Works, 100 Nassau St., New York.

Schwerdtle Stamp Co., Bridgeport, Ct.

R. Woodman Mfg. & Supply Co., Boston.

Brass and Copper Rods.

Bridgeport Brass Co., 253 Broadway, New York.

French Mfg. Co., Waterbury, Ct.

Ohio Nut & Bolt Co., Berea, O.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Riverside Metal Co., Riverside, N. J.

Arthur T. Rutter & Co., 256 Broadway, New York.

Waterbury Brass Co., Waterbury, Ct.

Brass Bedsteads, Bolts, &c.

(See Bedsteads, Bolts, &c.)

Brass, Brazing.

Bridgeport Brass Co., 253 B'way, N. Y.

U. T. Hungerford Brass & Copper Co.,

497-505 Pearl St., New York.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Riverside Metal Co., Riverside, N. J.

Arthur T. Rutter & Co., 256 Broadway, New York.

Scovill Mfg. Co., Waterbury, Ct.

Brass, Embossed or Figured.

Bridgeport Brass Co., 253 B'way, N. Y.

Waterbury Brass Co., Waterbury, Ct.

Brass Finishers.

Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.

Whitlock Coil Pipe Co., Hartford, Ct.

Brass Finishing Machines.

Drees Machine Tool Co., Cincinnati, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.

Warner & Swasey Co., Cleveland, O.

Brass Goods.

(See Cocks, Brass.)

Brass, Hoop.

Bridgeport Brass Co., 253 B'way, N. Y.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Arthur T. Rutter & Co., 256 Broadway, New York.

Brass Knuckles.

(See Gloves, Metal.)

Brass, Ornamental.

(See Iron, Brass, Bronze, Ornamental.)

Brass, Perforated Sheet.

Clinton Wire Cloth Co., Clinton, Mass.

Erie Perforating Co., Rochester, N. Y.

Harrington & King Perforating Co., 224

N. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.

Chas. Mundt & Sons, 441 Pearl St., N. Y.

Brass Quadrants, Skylight.

(See Quadrants, Brass Skylight.)

Brass, Roll and Sheet.

Bridgeport Brass Co., 253 B'way, N. Y.

U. T. Hungerford Brass & Copper Co.,

497-505 Pearl St., New York.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Riverside Metal Co., Riverside, N. J.

Arthur T. Rutter & Co., 256 Broadway, New York.

Scovill Mfg. Co., Waterbury, Ct.

Waterbury Brass Co., Waterbury, Ct.

Brass, Rule (Printers').

Bridgeport Brass Co., 253 B'way, N. Y.

Riverside Metal Co., Riverside, N. J.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Riverside Metal Co., Riverside, N. J.

Brass, Sheets, Platinum

Plated.

Ellwood Ivins Tube Works, Oak Lane

Sta., Philadelphia, Pa.

Brass, Sign or Engravers.

Bridgeport Brass Co., 253 B'way, N. Y.

Riverside Metal Co., Riverside, N. J.

Brass, Spring.

Bridgeport Brass Co., 253 B'way, N. Y.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Riverside Metal Co., Riverside, N. J.

Brass, White.

Bridgeport Deoxidized Bronze & Metal

Co., Bridgeport, Ct.

Paul S. Reeves & Son, Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Brass Working Tools.

(See Tools, Brass Working.)

Brasses, Car-
Magnolia Metal Co., 511 W. 13th St., N.Y.
Ohio Brass Co., Mansfield, O.
Kingside Metal Co., Riverside, N. J.

Brazers-
(See Furnaces, Brazing.)

Brazing Compound, Cast Iron-
American Ferroflux Brazing Co., Arcade Bldg., Philadelphia, Pa.
Phillips-Lafitte Co., Pennsylvania Bldg., Philadelphia, Pa.

Brazing Plates-
Phillips-Lafitte Co., Pennsylvania Bldg., Philadelphia, Pa.
Brazing, to Order-
American Ferroflux Brazing Co., Arcade Bldg., Philadelphia, Pa.
Carlin Machinery & Supply Co., Inc., Allegheny, Pa.
Whitlock Coil Pipe Co., Hartford, Ct.

Bread and Cake Makers-
(See Mixers, Dough.)

Bread Baskets-
(See Baskets, Bread.)

Bread Coolers-
(See Kitchen Articles, Wire.)

Breakers, Ice-
Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.
C. E. Jennings & Co., 42 Murray St., New York.
North Bros. Mfg. Co., American St. & Lehigh Ave., Philadelphia, Pa.

Breakers, Skull-
Thomas Carlin's Sons, Allegheny, Pa.

Breaks, Peg-
Louis Sacks, Newark, N. J.

Breast Chains-
(See Chains, Wagon and Fancy.)

Breast Drills-
(See Drills, Breast.)

Brewery Machinery-
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Vilter Mfg. Co., Milwaukee, Wis.

Brick, Acid Proof-
Hayes Rim Fire Brick Co., Orvis, Pa.
Laclede Fire Brick Mfg. Co., St. Louis.
Ostrander Fire Brick Co., Troy, N. Y.

Brick, Boiler Door Arch and Jamb-
Presbrey Fire Brick Works, Taunton, Mass.

Brick, Building-
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Portsmouth Harbison-Walker Co., Portsmouth, O.

Brick, Chemical Works-
Harbison-Walker Refractories Co., Pittsburgh, Pa.

Hayes Rim Fire Brick Co., Orvis, Pa.
Laclede Fire Brick Mfg. Co., St. Louis.
Ostrander Fire Brick Co., Troy, N. Y.
Queen's Run Fire Brick Co., Lock Haven, Pa.

Brick Chisels, Drills, &c.-
(See Chisels, Drills, &c.)

Brick, Fire-
Cyrus Borgner, 23d St. above Race, Philadelphia, Pa.
Gilmour & Co., Bennett Bldg., New York.
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Hayes Rim Fire Brick Co., Orvis, Pa.
Laclede Fire Brick Mfg. Co., St. Louis.

Henry Maurer & Son, 420 East 23d St., New York.
Ostrander Fire Brick Co., Troy, N. Y.
Portsmouth Harbison-Walker Co., Portsmouth, O.
Presbrey Fire Brick Works, Taunton, Mass.
J. D. Smith Foundry Supply Co., Cleveland, O.
M. D. Valentine & Bro., Woodbridge, N. J.

MERCHANTS.
Walter Graham, Harrison Bldg., Philadelphia, Pa.
C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.
Jerome Keeley & Co., 421 Chestnut St., Philadelphia, Pa.
S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
Shook & Fletcher, Birmingham, Ala.
Brick, Glass Works-
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Hayes Rim Fire Brick Co., Orvis, Pa.
Laclede Fire Brick Mfg. Co., St. Louis.
Ostrander Fire Brick Co., Troy, N. Y.
Portsmouth Harbison-Walker Co., Portsmouth, O.
M. D. Valentine & Bro., Woodbridge, N. J.

Brick, Hollow-
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Hayes Rim Fire Brick Co., Orvis, Pa.
Laclede Fire Brick Mfg. Co., St. Louis.
Henry Maurer & Son., 420 East 23d St., New York.

Brick, Locomotive-
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Presbrey Fire Brick Works, Taunton, Mass.

Brick Machinery-
Thos. Carlin's Sons, Allegheny, Pa.
Chambers Bros. Co., 52d St. below Lancaster Ave., Philadelphia, Pa.
Eastern Machinery Co., New Haven, Ct.
Standard Car & Foundry Co., Pittsburgh.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Brick, Paving-
Laclede Fire Brick Mfg. Co., St. Louis.

Brick, Stove Fire-
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Hayes Rim Fire Brick Co., Orvis, Pa.
Laclede Fire Brick Mfg. Co., St. Louis.
Presbrey Fire Brick Works, Taunton, Mass.
M. D. Valentine & Bro., Woodbridge, N. J.

Bricks, Emery-
Chicago Wheel & Mfg. Co., 3945 W. Randolph St., Chicago, Ill.
Norton Emery Wheel Co., Worcester, Mass.
Vitrified Wheel Co., Westfield, Mass.

Bridge Bolts, Flooring, &c.-
(See Bolts, Flooring.)

Bridge Machinery-
Badger State Machine Co., Janesville, Wis.
Bertsch & Co., Cambridge City, Ind.
Betts Machine Co., Wilmington, Del.
Fawcus Machine Co., Pittsburgh, Pa.
Hilles & Jones Co., Wilmington, N. J.
J. J. McCabe, 14 DeJ St., New York.

- Niles-Bement-Pond Co., 111 Broadway, New York.
- Wm. Sellers & Co. (Inc.), Philadelphia.
- Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
- Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.
- Wickes Bros., Saginaw, Mich.
- MERCHANTS
- J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
- Marshall & Huschart Machinery Co., 63 S. Canal St., Chicago, Ill.
- Match & Merryweather Machinery Co., Cleveland, O.
- Joseph T. Ryerson & Son, 13-22 Milwaukee Ave., Chicago, Ill.
- Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
- Stiles-Morse Co., Western Union Bldg., Chicago, Ill.
- Bridge Pins—**
Columbia Bridge Co., Pittsburgh, Pa.
- Finished Steel Co., Youngstown, O.**
- Bridges—**
(See Buildings and Bridges.)
- Bridges, Suspension—**
Broderick & Bascom Rope Co., St. Louis.
- A. Leschen & Sons Rope Co., St. Louis.
- Bridle Bits—**
(See Bits, Bridle.)
- Brine Hooks—**
(See Hooks, Brine.)
- Branching Machines—**
(See Presses, Branching.)
- Broilers—**
Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.
- Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
- Kilbourne Mfg. Co., Troy, N. Y.
- Parker Wire Goods Co., Worcester, Mass.
- Schneider & Trenkamp Division, American Stove Co., Cleveland, O.
- Republic Metalware Co., Buffalo, N. Y.
- Wire Goods Co., Worcester, Mass.
- Broilers, Electric—**
General Electric Co., Schenectady, N. Y.
- Broilers, Steam and Hot Water—**
Whitlock Coil Pipe Co., Hartford, Ct.
- Brokers, Iron and Steel—**
(See Iron and Steel Brokers and Merchants.)
- Bronze, Aluminum—**
Bridgeport Brass Co., 253 B'way, N. Y.
- Bronze Bolts, Butts, &c.—**
(See Bolts, Butts, &c.)
- Bronze Forgings, Manganese—**
(See Forgings, Manganese Bronze.)
- Bronze, Manganese—**
Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.
- Crescent-Phosphorized Metal Co., Philadelphia, Pa.
- Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
- Paul S. Reeves & Son, Philadelphia, Pa.
- Riverside Metal Co., Riverside, N. J.
- Bronze Metal—**
Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.
- Bridgeport Brass Co., 253 B'way, N. Y.
- Ohio Brass Co., Mansfield, O.
- Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
- Plume & Atwood Mfg. Co., Waterbury, Ct.
- Paul S. Reeves & Son, Philadelphia, Pa.
- Riverside Metal Co., Riverside, N. J.
- Arthur T. Rutter & Co., 256 Broadway, New York.
- Scovill Mfg. Co., Waterbury, Ct.
- Bronze, Ornamental and Architectural—**
Winslow Bros. Co., 2515 W. Harrison St., Chicago, Ill.
- Bronze, Phosphor—**
Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.
- Crescent-Phosphorized Metal Co., Philadelphia, Pa.
- Nolte Brass Co., Springfield, O.
- Ohio Brass Co., Mansfield, O.
- Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
- Paul S. Reeves & Son, Philadelphia, Pa.
- Riverside Metal Co., Riverside, N. J.
- MERCHANTS
- Patterson, Gottfried & Hunter, Ltd., 146-150 Center St., New York.
- Arthur T. Rutter & Co., 256 Broadway, New York.
- J. J. Ryan & Co., 68-74 W. Monroe St., Chicago, Ill.
- Bronze Rods—**
(See Rods, Bronze.)
- Bronze, Roll and Sheet—**
Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.
- Bridgeport Brass Co., 253 B'way, N. Y.
- Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
- Paul S. Reeves & Son, Philadelphia, Pa.
- Riverside Metal Co., Riverside, N. J.
- Arthur T. Rutter & Co., 256 Broadway, New York.
- Waterbury Brass Co., Waterbury, Ct.
- Bronzes, Ornamental—**
Goodwin & Kintz Co., Winsted, Ct.
- Bronzing—**
J. B. Shannon & Sons, 816 Chestnut St., Philadelphia, Pa.
- Broom Holders, Racks—**
(See Household Articles, Wire.)
- Brooms, Brewers—**
Osborn Mfg. Co., Cleveland, O.
- Brooms, Chisel Handle—**
Osborn Mfg. Co., Cleveland, O.
- Brooms, Railroad, Snow and Switch—**
Osborn Mfg. Co., Cleveland, O.
- Brooms, Steel, Wire, Fiber, &c.—**
Osborn Mfg. Co., Cleveland, O.
- Rice Mfg. Co., New Durham, N. H.
- J. D. Smith Foundry Supply Co., Cleveland, O.
- Star Expansion Bolt Co., 147-149 Cedar St., New York.
- Walter A. Zelnicker Supply Co., St. Louis.
- Brooms, Track—**
Osborn Mfg. Co., Cleveland, O.
- Rice Mfg. Co., New Durham, N. H.
- Brush, Copper—**
(See Copper, Commutator Brush.)
- Brushes, Billiard Table—**
Osborn Mfg. Co., Cleveland, O.
- Brushes, Butchers', Packing—**
John Chatillon & Son, 85 Cliff St., N. Y.
- Osborn Mfg. Co., Cleveland, O.
- Rice Mfg. Co., New Durham, N. H.

- Brushes, Carbon Commutator**
General Electric Co., Schenectady, N. Y.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
- Brushes, Counter or Bench**
Osborn Mfg. Co., Cleveland, O.
- Brushes, Deck Scrub**
Osborn Mfg. Co., Cleveland, O.
- Brushes, Dye**
Osborn Mfg. Co., Cleveland, O.
- Brushes, Electroplating**
Hanson & Van Winkle Co., Newark, N. J.
Osborn Mfg. Co., Cleveland, O.
Zucker & Levett & Loeb Co., 526-530 West 25th St., New York.
- Brushes, Flue**
Maurer, Labadie & Co., South Bend, Ind.
- Brushes, Foundry**
S. Obermayer Co., Cincinnati, O.
Osborn Mfg. Co., Cleveland, O.
Rice Mfg. Co., New Durham, N. H.
J. D. Smith Foundry Supply Co., Cleveland, O.
- Brushes, Furnace and Heater**
Osborn Mfg. Co., Cleveland, O.
Rice Mfg. Co., New Durham, N. H.
- Brushes, Graphite Commutator**
Joseph Dixon Crucible Co., Jersey City.
- Brushes, Machine**
Osborn Mfg. Co., Cleveland, O.
- Brushes, Painters' Wire Scratch**
Osborn Mfg. Co., Cleveland, O.
- Brushes, Pipe**
Osborn Mfg. Co., Cleveland, O.
- Brushes, Railroad**
Osborn Mfg. Co., Cleveland, O.
- Brushes, Rubber Bath**
Springfield Tire & Rubber Co., Springfield, O.
- Brushes, Scrub**
Osborn Mfg. Co., Cleveland, O.
- Brushes, Silver Plated**
International Silver Co., 9-13 Maiden Lane, New York.
- Brushes, Silver Platers'**
Osborn Mfg. Co., Cleveland, O.
- Brushes, Sink**
(See Cleaners, Sink.)
- Brushes, Steel Wire**
Edward Darby & Sons, 233 Arch St., Philadelphia, Pa.
Estey Wire Works Co., 59 Fulton St., New York.
S. Obermayer Co., Cincinnati, O.
Osborn Mfg. Co., Cleveland, O.
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
Rice Mfg. Co., New Durham, N. H.
J. D. Smith Foundry Supply Co., Cleveland, O.
- Brushes, Tumbler**
Osborn Mfg. Co., Cleveland, O.
- Brushes, Whitewash, Horse, Shoe, &c.**
Osborn Mfg. Co., Cleveland, O.
Wright Wire Co., Worcester, Mass.
- Brushes, Window**
Osborn Mfg. Co., Cleveland, O.
- Brushes, Wire, Casting, Gear, &c.**
Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.
- Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
Estey Wire Works Co., 59 Fulton St., N. Y.
Osborn Mfg. Co., Cleveland, O.
Rice Mfg. Co., New Durham, N. H.
J. D. Smith Foundry Supply Co., Cleveland, O.
- Brushes, Wire, Horse, Hair, Cattle, &c.**
Osborn Mfg. Co., Cleveland, O.
- Brushes, Wire Wheel**
S. Obermayer Co., Cincinnati, O.
Osborn Mfg. Co., Cleveland, O.
- Bucket Lips and Teeth**
Taylor Iron & Steel Co., High Bridge, N. J.
- Buckets and Cups, Elevator**
Avery Stamping Co., Cleveland, O.
C. O. Bartlett & Snow Co., Cleveland, O.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Brown Hoisting Machinery Co., Cleveland.
Buhl Malleable Co., Detroit, Mich.
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
W. E. Caldwell Co., Louisville, Ky.
Case Mfg. Co., Columbus, O.
W. J. Clark Co., Salem, O.
Dodge Mfg. Co., Mishawaka, Ind.
Fairbanks Co., 416 Broome St., New York.
I. & E. Greenwald Co., Cincinnati, O.
Hendrick Mfg. Co., Carbondale, Pa.
C. W. Hunt Co., West New Brighton, N. Y.
- Interstate Engineering Co., Bedford, O.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh.
- Buckets, Chain Pump, Rubber**
Cleveland Galvanizing Wks., Cleveland, O.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Union Mfg. Co., New Britain, Ct.
- Buckets, Clam Shell**
Browning Engineering Co., Cleveland, O.
Pittsburgh Industrial Iron Works, Pittsburgh, Pa.
- Wellman-Seaver-Morgan Co., Cleveland, O.
- Buckets, Dope**
Johnson Mfg. Co., Urbana, O.
- Buckets, Dredge**
Taylor Iron & Steel Co., High Bridge, N. J.
- Buckets, Elevator Pump**
Cleveland Galvanizing Works, Cleveland.
- Buckets, Factory**
W. J. Clark Co., Salem, O.
Gem Mfg. Co., Pittsburgh, Pa.
S. Obermayer Co., Cincinnati, O.
Osborn Mfg. Co., Cleveland, O.
J. D. Smith Foundry Supply Co., Cleveland, O.
- Buckets, Fire**
W. J. Clark Co., Salem, O.
Howard & Morse, 45 Fulton St., New York.
- Walter A. Zelnicker Supply Co.
- Buckets, Grab**
Browning Engineering Co., C.
- Buckets, Hoisting**
C. O. Bartlett & Snow
Brown Hoisting Mach
Thomas Carlin's Co.
W. J. Clark Co.,

Fairbanks Co., 416 Broome St., New York.
Hendrick Mfg. Co., Carbondale, Pa.
C. W. Hunt Co., West New Brighton,
N. Y.

Interstate Engineering Co., Bedford, O.
New Jersey Foundry & Machine Co., 9-
15 Murray St., New York.

Northern Engineering Works, Detroit,
Mich.

Pittsburgh Industrial Iron Works, Pitts-
burgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

MERCHANTS.

Broderick & Bascom Rope Co., St. Louis.
Carlin Machinery & Supply Co., Inc.,
Allegheny, Pa.

A. Leschen & Sons Rope Co., St. Louis.

Buckets, Minnow—
Clark, Horrocks Co., Utica, N. Y.

Buckets, Ore and Coal—
C. O. Bartlett & Snow Co., Cleveland, O.

Brown Hoisting Machinery Co., Cleveland.

Browning Engineering Co., Cleveland, O.

H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

W. J. Clark Co., Salem, O.

Fairbanks Co., 416 Broome St., New York.

Hendrick Mfg. Co., Carbondale, Pa.

Interstate Engineering Co., Bedford, O.

Northern Engineering Works, Detroit,
Mich.

Pittsburgh Industrial Iron Works, Pitts-
burgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Buckets, Pipe—

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Buckets, Self Dumping—

Brown Hoisting Machinery Co., Cleveland.

Browning Engineering Co., Cleveland, O.

W. J. Clark Co., Salem, O.

F. H. Evans, Brooklyn, N. Y.

Fairbanks Co., 416 Broome St., New York.

C. W. Hunt Co., West New Brighton,
N. Y.

Interstate Engineering Co., Bedford, O.

New Jersey Foundry & Machine Co., 9-
15 Murray St., New York.

Northern Engineering Works, Detroit,
Mich.

Pittsburgh Industrial Iron Works, Pitts-
burgh, Pa.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Wellman-Seaver-Morgan Co., Cleveland, O.

Buckets, Water—

Johnson Mfg. Co., Urbana, O.

Buckets, Well—

Edwards Mfg. Co., Cincinnati, O.

Richmond Cedar Works, Richmond, Va.

Buckle Machinery, Wire—

Baird Machine Co., Oakville, Ct.

E. J. Manville Machine Co., Waterbury,
Ct.

Buckles, Back Band—

Stanley Wire Mfg. Co., New Britain, Ct.

Buckles, Pipe—

Samuel Hall's Sons, 229-233 W. 10th St.,
New York.

Buckles, Trunk and Bag—

R. C. Jenkinson & Co., Newark, N. J.

Buckles, Wire—

Novell Wire Mfg. Co., West Haven, Ct.

Spencer Wire Co., Worcester, Mass.

Bucks, Wood Saw—

E. C. Atkins & Co., Indianapolis, Ind.

Henry Disston & Sons, Philadelphia, Pa.

Buffer Steels—

(See Steels, Buffer and Scraper.)

Vaughan & Bushnell Mfg. Co., Chicago.

Buffers, Horseshoers—

Heller Bros., Co., Newark, N. J.

Vaughan & Bushnell Mfg. Co., Chicago.

Buffing and Polishing Ma-

chines—

Badger State Machine Co., Janesville,
Wis.

B. F. Barnes Co., Rockford, Ill.

C. H. Besly & Co., 15-21 Clinton St.,
Chicago, Ill.

Bridgeport Safety Emery Wheel Co.,
Bridgeport, Ct.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Builders Iron Foundry, Providence, R. I.

Chicago Flexible Shaft Co., 124 La Salle
Ave., Chicago, Ill.

Chicago Wheel & Mfg. Co., 39-45 W. Ran-
dolph St., Chicago, Ill.

Diamond Machine Co., Providence, R. I.

Divine Bros. Co., Utica, N. Y.

Fairbanks Co., 416 Broome St., New York.

Fox Machine Co., Grand Rapids, Mich.

Garvin Mch. Co., Spring and Varick Sta.,
New York.

Goodell-Pratt Co., Greenfield, Mass.

Hanson & Van Winkle Co., Newark, N. J.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Northampton Emery Wheel Co., Leeds,
Mass.

Northern Electrical Mfg. Co., Madison,
Wis.

Norton Grinding Co., Worcester, Mass.

Ransom Mfg. Co., Oshkosh, Wis.

Safety Emery Wheel Co., Springfield, O.

Seneca Falls Mfg. Co., Seneca Falls,
N. Y.

Springfield Mfg. Co., Bridgeport, Ct.

Stow Flexible Shaft Co., 26th & Callow-
hill Sts., Philadelphia, Pa.

Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Watson-Stillman Co., 46 Dey St., New
York.

Webster & Perks Tool Co., Springfield, O.

Whitman & Barnes Mfg. Co., Akron, O.

Zucker & Levett & Loeb Co., 629-630 West
25th St., New York.

MERCHANTS.

George E. Affleck, 107 Liberty St., N. Y.

J. H. Dawson Machinery Co., 39-41 So.
Canal St., Chicago, Ill.

Hannan & Pinton Co., Springfield, Mass.

Manning, Maxwell & Moore, 85 Liberty
St., New York.

Marshall & Huschart Machinery Co., 62
S. Canal St., Chicago, Ill.

Patterson, Gotfried & Hunter, Ltd., 146-
150 Centre St., New York.

Prentiss Tool & Supply Co., 115 Liberty
St., New York.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

H. A. Stocker Machinery Co., 20 S. Clin-
ton St., Chicago, Ill.

Vandyck-Churchill Co., 8 Dey St., N. Y.

Wicks Bros., Saginaw, Mich.

C. C. Wormer Machinery Co., Detroit,
Mich.

Buffing and Polishing Ma-

chines, Electrical.

Bridgeport Safety Emery Wheel Co., Inc.,
Bridgeport, Ct.

General Electric Co., Schenectady, N. Y.
Stow Flexible Shaft Co., 26th and Callow-
 hill Sts., Philadelphia, Pa.

Buffing Supplies—
 (See Polishing and Buffing Supplies.)

Bufs—
Chicago Wheel & Mfg. Co., 39-45 W. Ran-
 dolph St., Chicago, Ill.
Diamond Machine Co., Providence, R. I.
Divine Bros. Co., Utica, N. Y.
Hanson & Van Winkle Co., Newark, N. J.
Zucker & Levett & Loeb Co., 528-530 West
 25th St., New York.

Buggies—
 (See Vehicles, Buggies, Carriages, &c.)
Buggies, Ore. Coal. Cinder.
 &c.—

Thomas Carlin's Sons, Allegheny, Pa.
Hendrick Mfg. Co., Carbondale, Pa.
Sheffield Car Co., Three Rivers, Mich.

Building Bracket Hangers—
 (See Hooks, Building Bracket.)

Building Fronts—
 (See Fronts, Building, Sheet Iron.)

Building Material. Fire
Proof—

Henry Maurer & Son, 420 East 23d St.,
 New York.

Buildings and Bridges—

Allentown Rolling Mills, Allentown, Pa.
American Bridge Co., of New York, 42
 Broadway, New York.

Baltimore Bridge Co., Baltimore, Md.
Belmont Iron Works, Inc., Philadelphia.

Berlin Construction Co., Berlin, Ct.
Bethlehem Foundry & Machine Co.,
 South Bethlehem, Pa.

Boston Bridge Works, Boston, Mass.
Carnegie Steel Co., Pittsburgh, Pa.

Chesapeake Iron Works, Baltimore, Md.
Columbia Bridge Co., Pittsburgh, Pa.

J. B. & J. M. Cornell, 239 11th Ave.,
 New York.

John Eichleay, Jr. Co., Pittsburgh, Pa.
Forest City Steel & Iron Co., Clevel-
 and, O.

Interstate Engineering Co., Bedford, O.
Kenwood Bridge Co., First National Bank
 Bldg., Chicago, Ill.

W. N. Kratzer & Co., Pittsburgh, Pa.
McClintic-Marshall Construction Co.,
 Pittsburgh, Pa.

James V. Marcus, Peoria, Ill.
National Iron & Wire Co., Cleveland, O.

Pascale Steel Co., Paterson, N. J.
Phoenix Iron Co., 410 Walnut St., Phila-
 delphia, Pa.

Pittsburgh Steel Construction Co., Pitts-
 burgh, Pa.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Lewis F. Shoemaker & Co., Harrison
 Bldg., Philadelphia, Pa.

Stewart Iron Works Co., Cincinnati, O.
Van Dorn Iron Works Co., Cleveland, O.

Buildings, Election Booth—
Forest City Steel & Iron Co., Clevel-
 and, O.

Garry Iron & Steel Co., Cleveland, O.
Van Dorn Iron Works Co., Cleveland, O.

Buildings, Horticultural—
Lord & Burnham Co., Irvington-on-Hud-
 son, N. Y.

Bull Leaders, Rings—
 (See Leaders, Rings.)

Bull Tongues—
Harrow Spring Co., Kalamazoo, Mich.

Bulldozers—
Ajax Mfg. Co., Cleveland, O.

Badger State Machine Co., Janesville,
 Wis.

E. W. Bliss Co., Brooklyn, N. Y.
Fischer Foundry & Machine Co., Pitts-
 burgh, Pa.

Hilles & Jones Co., Wilmington, Del.
Long & Allstatter Co., Hamilton, O.

National Machinery Co., Tiffin, O.
Niles-Bement-Pond Co., 111 Broadway,
 New York.

Pittsburgh Mfg. Co., Pittsburgh, Pa.
Williams, White & Co., Moline, Ill.

Bull's, Dead, Eyes, &c.—
 (See Eyes, Dead, Bull's, &c.)

Bull's Eyes or Lizards.
Floor—

W. & J. Tiebout, 118 Chambers St., N. Y.

**Bumpers and Springs, Rub-
 ber—**

New York Belting & Packing Co., 91-93
 Chambers St., New York.

Springfield Tire & Rubber Co., Spring-
 field, O.

Bumpers, Door—
Ashtabula Mfg. Co., Ashtabula, O.

Bumpers, Screw—
H. O. Canfield Co., Bridgeport, Ct.

Bung Head Bolts—
 (See Bolts, Special.)

Bung Hole Bore—
 (See Bore, Bung.)

Bung Starters—
 (See Starters, Bung.)

Bungs, Oil Can—
Taylor & Boggis Foundry Co., Clevel-
 and, O.

Boys—
E. B. Estes & Sons, 45-47 John St., N. Y.

Burglar Proof Vaults—
 (See Vaults, Fire and Burglar Proof.)

**Burners and Gas Gener-
 ators, Automobile—**

Dangler Stove & Mfg. Div., Am. Stove
 Co., Cleveland, O.

Janney Steinmetz & Co., Drexel Bldg.,
 Philadelphia, Pa.

Burners, Core Oven—
Monarch Engineering & Mfg. Co., Balti-
 more, Md.

**Burners for Gasoline En-
 gines—**

E. W. Auduzen Co., Cincinnati, O.

Burners, Fuel, Oil—
John M. Rogers Boat, Gauge & Drill
 Works, Gloucester City, N. J.

Burners, Gas—
Hess-Snyder Co., Massillon, O.

Schneider & Trenkamp Division, American
 Stove Co., Cleveland, O.

Turner Brass Works, Franklin & Michigan
 Sts., Chicago, Ill.

Burners, Gasoline Stove—
Niagara Machine & Tool Works, Buffalo,
 N. Y.

Schneider & Trenkamp Division, American
 Stove Co., Cleveland, O.

Turner Brass Works, Franklin & Michi-
 gan Sts., Chicago, Ill.

Burners, Hydro-Car
Manning, Maxwell & Moore,
 St., New York.

Turner Brass Works, Frank-
 lin & Michigan Sts., Chicago, Ill.

- Burners, Kerosene—**
Bridgeport Brass Co., New York.
Plume & Atwood Mfg. Co., Waterbury, Ct.
John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.
Scovill Mfg. Co., Waterbury, Ct.
- Burners, Natural Gas—**
Hollands Mfg. Co., Erie, Pa.
- Burners, Paint—**
Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.
Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.
Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.
- Burning Brands—**
(See Brands, Burning.)
- Burnishers—**
Charles Buck Edge Tool Co., Millbury, Mass.
Buck Bros., Millbury, Mass.
Tuck Mfg. Co., Brockton, Mass.
- Burring Machines, Nut—**
Acme Machinery Co., Cleveland, O.
National Machinery Co., Tiffin, O.
- Burrs, Copper—**
(See Rivets and Burrs, Copper.)
- Burrs, Steel—**
American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, O.
Cobb & Drew, Plymouth, Mass.
Falls River & Machine Co., Cuyahoga Falls, O.
Grand Crossing Tack Co., Grand Crossing, Ill.
Samuel Hall's Sons, 229-233 W. 10th St., New York.
R. C. Jenkins & Co., Newark, N. J.
H. A. Matthews Mfg. Co., Seymour, Ct.
Mount Carmel Bolt Co., Mt. Carmel, O.
Nicolet Plate Washer Co., 1822-50 W. Juniata St., Philadelphia, Pa.
J. H. Sessions & Son, Bristol, Ct.
Stanley Works, New Britain, Ct.
Wrought Washer Mfg. Co., Milwaukee, Wis.
(See also Washers, Wrought.)
- Bush Hooks—**
(See Hooks, Bush.)
- Bushed Chains—**
(See Chains, Bushed.)
- Bushings, Dredge—**
Taylor Iron & Steel Co., High Bridge, N. J.
- Bushings, Loose Pulley—**
North American Metaline Co., Long Island City, N. Y.
- Bushings, Pulley—**
Boston & Lockport Block Co., Boston.
Case Mfg. Co., Columbus, O.
Dodge Mfg. Co., Mishawaka, Ind.
North American Metaline Co., Long Island City, N. Y.
- Business Opportunities—**
American Business Opportunity Co., 150 Nassau St., New York.
Crescent Machinery Co., Cleveland, O.
- Butcher Cleavers, Knives, &c.—**
(See Cleavers, Knives, &c.)
- Butchers' Tools—**
John Chatillon & Sons, 85 Cliff St., N. Y.
Henry Dieston & Sons, Philadelphia, Pa.
Chas. Forchner & Sons, 206 E. 19th St., New York.
Vaughan & Bushnell Mfg. Co., Chicago.
L. & J. J. White Co., Buffalo, N. Y.
- Butt and Rabbet Gauges—**
(See Gauges, Butt and Rabbet.)
- Butt Milling and Drilling Machines—**
(See Milling and Drilling Machines, Butt.)
- Butter Dishes—**
(See Dishes, Silver Plated.)
- Butterises, Blacksmiths'—**
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Wells Bros. Co., Greenfield, Mass.
- Button Back Machines—**
Adriance Machine Works, Brooklyn, N. Y.
E. W. Bliss Co., Brooklyn, N. Y.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
- Button Head Bolts—**
(See Bolts, Special.)
- Button Hole Cutters—**
(See Cutters, Button Hole.)
- Button Hooks—**
(See Hooks, Button.)
- Button Loops—**
(See Loops, Garment Button.)
- Button Machinery—**
Gould & Eberhardt, Newark, N. J.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
- Buttons, Door—**
Arcade Mfg. Co., Freeport, Ill.
Ney Mfg. Co., Canton, O.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
W. & J. Tiebout, 118 Chambers St., N. Y.
- Buttons, Push—**
W. R. Ostrander & Co., 22 Dey St., N. Y.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
I. S. Spencer's Sons, Guilford, Ct.
Union Hardware Co., Torrington, Ct.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.
- Buttons, Suspender—**
American Ring Co., Waterbury, Ct.
- Butts and Hinges, Brass—**
Plume & Atwood Mfg. Co., Waterbury, Ct.
Reading Hardware Co., Reading, Pa.
Riverside Metal Co., Riverside, N. J.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Scovill Mfg. Co., Waterbury, Ct.
- Butts and Hinges, Bronze—**
Riverside Metal Co., Riverside, N. J.
- Butts, Ball Bearing—**
Stanley Works, New Britain, Ct.
- Butts, Bronze—**
Columbian Hardware Co., Cleveland, O.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.
- Butts, Cast Brass—**
W. & J. Tiebout, 118 Chambers St., N. Y.
- Butts, Cast Iron—**
Columbian Hardware Co., Cleveland, O.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

- Taylor & Boggis Foundry Co., Cleveland, O.
 Union Mfg. Co., New Britain, Ct.
Butts, Spring—
 Bommer Bros., Brooklyn, N. Y.
 Chicago Spring Butt Co., Chicago, Ill.
Butts, Wrought Steel—
 Glen Rock Stamping Co., Glen Rock, Pa.
 Griffin Mfg. Co., Erie, Pa.
 Lawrence Bros., Sterling, Ill.
 McKinney Mfg. Co., Allegheny, Pa.
 National Mfg. Co., Sterling, Ill.
 Reading Hardware Co., Reading, Pa.
 Stanley Works, New Britain, Ct.
Buzz Planers—
 (See Planers, Buzz.)
Cabinet Clamps, &c.—
 (See Clamps, &c.)
Cabinet Hardware—
 American Ring Co., Waterbury, Ct.
 Yale & Towne Mfg. Co., 9-15 Murray St., New York.
Cabinet Hinges—
 Columbian Hardware Co., Cleveland, O.
 Griffin Mfg. Co., Erie, Pa.
 National Mfg. Co., Sterling, Ill.
 Reading Hardware Co., Reading, Pa.
 Stanley Works, New Britain, Ct.
Cabinets, Electrotypes, &c.—
 A. G. Butler, 284-286 Pearl St., New York.
Cabinets, Filing and Stationery—
 A. G. Butler, 284-286 Pearl St., New York.
 J. D. Warren Mfg. Co., Chicago, Ill.
Cabinets for Bicycle Extras—
 J. D. Warren Mfg. Co., Chicago, Ill.
Cabinets, Hack Saw Blade—
 Massachusetts Saw Works, Chicopee, Mass.
Cabinets, Hardware Store—
 W. C. Heller & Co., Montpelier, O.
 J. D. Warren Mfg. Co., Chicago, Ill.
Cabinets, Medicine, Toilet—
 Udell Works, Indianapolis, Ind.
Cabinets, Screw and Bolt—
 (See Cases, Screw and Bolt.)
Cabinets, Spice—
 Udell Works, Indianapolis, Ind.
Cabinets, Switchboard—
 E. B. Estes & Sons, 45-47 John St., N. Y.
Cabinets, Tool—
 American Tool Chest Co., 200 W. Houston St., New York.
Cable Chain—
 (See Chain, Crane, Cable, &c.)
Cable, Hoisting—
 Broderick & Bascom Rope Co., St. Louis.
 A. Leschen & Sons Rope Co., St. Louis.
Cable Machinery, Wire—
 Farrel Foundry & Machine Co., Ansonia, Ct.
Cable Railroads—
 (See Conveying Machinery.)
Cable Railway Machinery—
 C. O. Bartlett & Snow Co., Cleveland, O.
 Broderick & Bascom Rope Co., St. Louis.
 Dodge Mfg. Co., Mishawaka, Ind.
 C. W. Hunt Co., West New Brighton, N. Y.
 A. Leschen & Sons Rope Co., St. Louis.
 Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
 Poole Engineering & Machine Co., Baltimore, Md.
 Robins Conveying Belt Co., Park Row Bldg., New York.
 Trenton Iron Co., Trenton, N. J.
 Robert Wetherill & Co., Chester, Pa.
- Cables, Electrical—**
 (See Wires, Electrical.)
Cables, Lead Covered Paper Insulated—
 Waterbury Co., 69 South St., New York.
Cables, Oil Well Drilling—
 American Mfg. Co., 65 Wall St., New York.
 Plymouth Cordage Co., North Plymouth, Mass.
Cables, Varnished Cambric Insulated—
 General Electric Co., Schenectady, N. Y.
Cableways, Marine—
 Lidgerwood Mfg. Co., 96 Liberty St., New York.
Cableways, Wire—
 (See Tramways, Wire Rope.)
Cadgers, Miners', Steel—
 Gem Mfg. Co., Pittsburgh, Pa.
Cages, Bird and Animal—
 Glen Mfg. Co., Ellwood City, Pa.
 Andrew B. Hendrix Co., New Haven, Ct.
Caissons, Steel—
 East Jersey Pipe Co., Paterson, N. J.
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.
Cake Baskets—
 (See Baskets, Silver Plated.)
Cake Coolers—
 (See Coolers.)
Cake Pans, Turners, &c.—
 (See Pans, Turners, &c.)
Calculating Machines—
 (See Adding, Computing and Reckoning Machines.)
Calendar Stands—
 (See Stands, Calendar.)
Calendars, Silver Plated—
 (See Desk Specialties.)
Calendering Machines, Paper—
 Aiton Machine Co., 126 Liberty St., N. Y.
 Farrel Foundry & Mach. Co., Ansonia, Ct.
Caliper and Divider, Combined—
 Iwan Bros., Streator, Ill.
Callipers—
 Athol Machine Co., Athol, Mass.
 Bemis & Call Hardware & Tool Co., Springfield, Mass.
 Billings & Spencer Co., Hartford, Ct.
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Dime, Stoddard & Co., Boston, Mass.
 Massachusetts Tool Co., Greenfield, Mass.
 New England Specialty Co., North Easton, Mass.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Pratt & Whitney Co., Hartford, Ct.
 L. S. Starrett Co., Athol, Mass.
Calipers, Decimal Log—
 Humphrey Machine Co., Keene, N. H.
Calipers, Gear Tooth—
 Brown & Sharpe Mfg. Co., Providence, R. I.
Calipers, Micrometer—
 Athol Machine Co., Athol, Mass.
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Massachusetts Tool Co., Greenfield, Mass.
 J. T. Slocum Co., Providence, R. I.
 L. S. Starrett Co., Athol, Mass.
Calipers, Pocket Slide—
 L. S. Starrett Co., Athol, Mass.

- Calipers, Vernier—**
Brown & Sharpe Mfg. Co., Providence, R. I.
- Schuchardt & Schutte, 136 Liberty St., New York.**
- Calking—**
Estes Mills, Fall River, Mass.
- Calking Irons, Mallets—**
(See Irons, Mallets.)
- Calking Tools, Electric—**
Northern Electrical Mfg. Co., Madison, Wis.
- Calking Tools, Pneumatic Boiler—**
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
Niles-Bement-Pond Co., 111 Broadway, New York.
Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
- MERCHANTS.**
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
- Calks, Boot—**
Ludkin Rule Co., Saginaw, Mich.
Louis Sacks, Newark, N. J.
- Calks, Horseshoe—**
American Horse Shoe Co., Phillipsburg, N. J.
P. F. Burke, South Boston, Mass.
Kilborn & Bishop Co., New Haven, Ct.
Rhode Island Perkins Horseshoe Co., Providence, R. I.
- Call Bells—**
(See Bells, Tea and Call.)
- Calls, Dog—**
Waterbury Brass Co., Waterbury, Ct.
- Calls, Express—**
E. B. Estes & Sons, 45-47 John St., N. Y.
- Calorimeters—**
Eimer & Amend, 205 Third Ave., N. Y.
- Cam Cutting—**
Boston Gear Works, Boston, Mass.
- Cam Cutting Attachments—**
Browne & Sharpe Mfg. Co., Providence, R. I.
Cincinnati Milling Machine Co., Cincinnati, O.
- Cam Cutting Machines—**
Niles-Bement-Pond Co., 111 Broadway, New York.
- Camp Stools—**
(See Stools, Camp.)
- Can Faucets, Jackets—**
(See Faucets, Jackets.)
- Can Machinery, Automatic—**
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.
- Can Makers' Machinery—**
Adriance Machine Works, Brooklyn, N. Y.
Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.
Chas. Leffler & Co., Brooklyn, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
- Fred J. Swaine Co., St. Louis, Mo.**
- Can Nozzles, Openers.**
(See Nozzles, Openers, Screws.)
- Can Stock, Milk—**
(See Milk Can Stock.)
- Candelabra—**
(See Candlesticks and Candelabra.)
- Candle Wicking—**
(See Wicks, Candle.)
- Candlesticks—**
American King Co., Waterbury, Ct.
Geo. S. Knapp, Bridgeport, Ct.
New York Stamping Co., Brooklyn, N. Y.
North Bros. Mfg. Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Republic Metalware Co., Buffalo, N. Y.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
- Candlesticks and Candelabra—**
Goodwin & Kintz Co., Winsted, Ct.
Hubley Mfg. Co., Lancaster, Pa.
International Silver Co., 9-13 Maiden Lane, New York.
Murdock-Shaw Co., Boston, Mass.
- Candlesticks, Miners—**
Cleveland Lock Co., Cleveland, O.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Tower & Lyon Co., 95 Chambers St., New York.
- Candy Pans, Scales, Scoops—**
(See Pans, Scales, Scoops.)
- Cane Knives—**
(See Knives, Cane.)
- Canisters and Caddies, Coffee, Tea, &c.—**
New York Stamping Co., Brooklyn, N. Y.
- Cannons, Yacht—**
R. H. Brown & Co., New Haven, Ct.
- Canoes—**
(See Boats and Canoes.)
- Canopies and Canopy fixtures—**
I. E. Palmer, Middletown, Ct.
- Canopies, Iron—**
(See Iron Work, Builders.)
- Canopy Nettings—**
(See Nettings, Canopy.)
- Cans, Aluminum—**
Cans, Ash and Garbage—
W. J. Clark Co., Salem, O.
Howard & Morse, 45 Fulton St., N. Y.
Republic Metalware Co., Buffalo, N. Y.
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
Stirling Blower & Pipe Mfg. Co., Hartford, Ct.
- Cans, Dredge Spice—**
Republic Metalware Co., Buffalo, N. Y.
- Cans, Ice, Galvanized Iron—**
Edwards Mfg. Co., Cincinnati, O.
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
Stirling Blower & Pipe Mfg. Co., Hartford, Ct.
- Cans, Milk—**
Lalance & Grosjean Mfg. Co., 19 Cliff St., New York.
Charles Millar & Son Co., Utica, N. Y.
Republic Metalware Co., Buffalo, N. Y.
Sturges & Burn Mfg. Co., Chicago, Ill.
- Cans, Oil—**
American Tube & Stamping Co., Bridgeport, Ct.
Berger Mfg. Co., Canton, O.
Delphos Can Co., Delphos, O.
Johnson Mfg. Co., Urbana, O.
Republic Metalware Co., Buffalo, N. Y.
- Cans, Oily Waste—**
W. J. Clark Co., Salem, O.
Delphos Can Co., Delphos, O.
Howard & Morse, 45 Fulton St., N. Y.
Stirling Blower & Pipe Mfg. Co., Hartford, Ct.

Cans, Paint and Varnish—
American Tube & Stamping Co., Bridge-
port, Conn.

Cans, Sprinkling—
Sturges & Burn Mfg. Co., Chicago, Ill.

Cans, Squirt—
Johnson Mfg. Co., Urbana, O.

Cans, Tin—
Republic Metalware Co., Buffalo, N. Y.

Cans, Train Water—
Johnson Mfg. Co., Urbana, O.

Cans, Water, Wooden—
Richmond Cedar Works, Richmond, Va.

Cant Hooks—
(See Hooks, Cant.)

Cap Screws—
(See Screws, Cap and Set.)

Cape Chisels—
(See Chisels, Cape.)

Capitals—
(See Architectural Sheet Metal Work.)

Caps and Bases, Post—
Van Dorn Iron Works Co., Cleveland, O.
W. J. Clark Co., Salem, O.

Caps and Ventilators—
Edwards Mfg. Co., Cincinnati, O.
W. & J. Tiebout, 118 Chambers St., N. Y.

Caps, Door and Window—
Metal—

Berger Mfg. Co., Canton, O.
G. Drouve Co., Bridgeport, Ct.

Edwards Mfg. Co., Cincinnati, O.

Caps, Hip, Pilaster, &c.—
(See Architectural Sheet Metal Work.)

Caps, Hose—
(See Hose Attachments.)

Caps, Percussion—
Union Metallic Cartridge Co., Bridge-
port, Ct.

Caps, Post, Fence—
Waterbury Brass Co., Waterbury, Ct.

Caps, Post, Hitching—
M. Lanz & Sons, Pittsburgh, Pa.
Van Dorn Iron Works Co., Cleveland, O.

Caps, Storm Sliding Door—
Union Mfg. Co., New Britain, Ct.

Caps, Storm Sliding Door—
Lane Brothers Co., Poughkeepsie, N. Y.

Capstans, Steam—
Browning Engineering Co., Cleveland, O.

Car Axles, Bearings, &c.—
(See Axles, Bearings, &c.)

Car Coupling Pins—
(See Pins, Car Coupling.)

Car Door Plates—
(See Plates, Car Door.)

Car Frames, Pressed Steel—
Avery Stamping Co., Cleveland, O.

Car Lighting—
(See Lighting, Car, Electric, from Axle.)

Car Pushers—
W. K. Kenly Co., First National Bank
Bldg., Chicago, Ill.

Car Seal Machinery—
(See Seals, Machinery for Making Car.)

Car Shop Tools—
Badger State Machine Co., Janesville,
Wis.

Edward J. Etting, Harrison Bldg., Phila-
delphia, Pa.

Fairbanks Co., 416 Broome St., New York.

Fischer Foundry & Machine Co., Pitts-
burgh, Pa.

Fox Machine Co., Grand Rapids, Mich.

Hilles & Jones Co., Wilmington, Del.

Manning, Maxwell & Moore, 85 Liberty
St., New York.

Niles-Bement-Pond Co., 111 Broadway,
New York.

George A. Ohl & Co., Newark, N. J.

Pratt & Whitney Co., Hartford, Ct.

Stow Flexible Shaft Co., 26th & Callow-
hill Sts., Philadelphia, Pa.

Williams, White & Co., Moline, Ill.

MERCHANTS.
J. H. Dawson Machinery Co., 39-41 S.
Canal St., Chicago, Ill.

Hill, Clarke & Co., Boston, Mass.

Marshall & Huschart Machinery Co., 62
S. Canal St., Chicago, Ill.

Moitch & Merryweather Machinery Co.,
Cleveland, O.

Joseph T. Ryerson & Son, 13-22 Milwa-
kee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and
Wayman Sts., Chicago, Ill.

Thornton Machinery Co., Providence, R. I.

Wickes Bros., Saginaw, Mich.

**Car Shop Wood Working
Machinery—**

Badger State Machine Co., Janesville,
Wis.

Defiance Machine Co., Defiance, O.

Fox Machine Co., Grand Rapids, Mich.

Greenlee Bros. & Co., Rockford, Ill.

Oliver Machinery Co., Grand Rapids,
Mich.

MERCHANTS.
Wickes Bros., Saginaw, Mich.

Car Starters—
(See Pushers, Car.)

Car Window Locks—
(See Locks, Car Window.)

Car Works Machinery—
Fox Machine Co., Grand Rapids, Mich.

Hilles & Jones Co., Wilmington, Del.

Niles-Bement-Pond Co., 111 Broadway,
New York.

George A. Ohl & Co., Newark, N. J.

Pratt & Whitney Co., Hartford, Ct.

Stow Flexible Shaft Co., 26th & Callow-
hill Sts., Philadelphia, Pa.

MERCHANTS.
Marshall & Huschart Machinery Co., 62
S. Canal St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

Carbide of Silicon—
(See Silicon, Carbide of.)

Carbines—
(See Rifles, Carbines, &c.)

Carbon Tongs—
(See Tongs, Carbon.)

Carborundum Cloth—
Carborundum Co., Niagara Falls, N. Y.

Carborundum Grains—
Carborundum Co., Niagara Falls, N. Y.

Carbureters, Engine—
Chicago Flexible Shaft Co., La Salle Ave.
and Ontario St., Chicago, Ill.

Turner Brass Works, Franklin & Michigan
Sts., Chicago, Ill.

Card Cases, Trays, &c.—
(See Cases, Trays, &c.)

Card Frames, Holders—
(See Frames, Holders.)

**Cards, Cotton, Horse, W-
&c.—**

John H. Graham & Co., 17
St., New York.

Cards, File Clean—
Nicholson File Co., Pitts-

Carpenter Shop Machinery—
Fox Machine Co., Grand Rapids, Mich.
Hobbs Mfg. Co., Worcester, Mass.
Oliver Machinery Co., Grand Rapids,
Mich.

Carpenters' Clamps, Slicks—
(See Clamps, Slicks.)

Carpet Stretchers, Sweepers—
(See Stretchers, Sweepers.)

Carriage and Wagon Hardware—

C. C. Bradley & Son, Inc., Syracuse,
N. Y.

E. D. Clapp Mfg. Co., Auburn, N. Y.
Richard Eccles Co., Auburn, N. Y.

John R. Keim Mills, Buffalo, N. Y.
Kilbourn & Bishop Co., New Haven, Ct.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

M. Seward & Son Co., New Haven, Ct.
Strieby & Foot Co., Newark, N. J.

Walter W. Woodruff & Sons Co., Mt. Car-
mel, Ct.

Carriage Axles, Bolts, &c.—
(See Axles, Bolts, &c.)

Carriage Hubs—
(See Hubs, Wire Wheel, Vehicle.)

Carriages, Gun—
Wellman-Seaver-Morgan Co., Cleveland, O.

Carriages, Trolley—
Case Mfg. Co., Columbus, O.

McCabe Hanger Mfg. Co., 425-427 W. 23th
St., New York.

New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

Richards Mfg. Co., Aurora, Ill.
Trenton Iron Co., Trenton, N. J.

Yale & Towne Mfg. Co., 9-15 Murray St.,
New York.

Carriers, Barb Wire—
Ludlow-Saylor Wire Co., St. Louis, Mo.

Carriers, Endless Apron—
Buhl Malleable Co., Detroit, Mich.

H. W. Caldwell & Son Co., Western Ave.
and 11th St., Chicago, Ill.

Interstate Engineering Co., Bedford, O.
Link-Belt Engineering Co., Nicetown,
Philadelphia, Pa.

New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

Robins Conveying Belt Co., 17-22 Park
Row, New York.

Carriers, Feed and Litter—
Louden Machinery Co., Fairfield, Ia.

J. E. Porter Co., Ottawa, Ill.

Carriers, Hand Hoist—
Brown Hoisting Machinery Co., Cleveland.

Case Mfg. Co., Columbus, O.

Niles-Bement-Pond Co., 111 Broadway,
New York.

New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

Ney Mfg. Co., Canton, O.

Yale & Towne Mfg. Co., 9-15 Murray St.,
New York.

Carriers, Hay Fork—
(See Hay Forks.)

Carriers, Milk Bottle—
Estey Wire Wks. Co., 59 Fulton St., N. Y.

Parker Wire Goods Co., Worcester, Mass.

John P. Smith & Co., New Haven, Ct.

Wire Goods Co., Worcester, Mass.

Carriers, Stove—
Kilbourn & Jacobs Mfg. Co., Columbus,

Kramer Bros. Foundry Co., Dayton, O.

Carriers, Trunk—
Boston & Lockport Block Co., Boston.

Kilbourn & Jacobs Mfg. Co., Columbus, O.

Ney Mfg. Co., Canton, O.

Carrying Track, Overhead—
(See Track, Overhead Carrying.)

Cars, Brick—
Atlas Car & Mfg. Co., Cleveland, O.

Chase Foundry & Mfg. Co., Columbus, O.

W. K. Kenly Co., First National Bank
Bldg., Chicago, Ill.

Kilbourn & Jacobs Mfg. Co., Columbus, O.

Arthur Koppel, 66 Broad St., New York.

Pittsburgh Industrial Iron Works, Pitts-
burgh, Pa.

Sheffield Car Co., Three Rivers, Mich.

Ernst Wiener Co., 68 Broad St., New
York.

MERCHANTS.

American Blower Co., Detroit, Mich.

Cars, Cement Block—
Chase Foundry & Mfg. Co., Columbus, O.

Cars, Cinder—
Arthur Koppel Co., 66-68 Broad St., New
York.

Cars, Coal—
Arthur Koppel Co., 66-68 Broad St., New
York.

Ernst Wiener Co., 68 Broad St., New
York.

Cars, Coal, Hotel, Kitchen—
Atlas Car & Mfg. Co., Cleveland, O.

Cars, Coal Mine, Pit, &c.—
Atlas Car & Mfg. Co., Cleveland, O.

Bancroft & Co., Fifth & Chestnut Sts.,
Philadelphia, Pa.

Chattanooga Car & Foundry Co., Chat-
tanooga, Tenn.

F. H. Evans, Brooklyn, N. Y.

Hendrick Mfg. Co., Carbondale, Pa.

O. W. Hunt Co., West New Brighton,
N. Y.

Jackson Mfg. Co., Harrisburg, Pa.

Jeffrey Mfg. Co., Columbus, O.

W. K. Kenly Co., First National Bank
Bldg., Chicago, Ill.

Kilbourn & Jacobs Mfg. Co., Columbus, O.

Arthur Koppel, 66 Broad St., New York.

Link-Belt Engineering Co., Nicetown,
Philadelphia, Pa.

Pittsburgh Industrial Iron Works, Pitts-
burgh, Pa.

Sheffield Car Co., Three Rivers, Mich.

Standard Car & Foundry Co., Pittsburgh,
Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Ernst Wiener Co., 68 Broad St., New
York.

MERCHANTS.

Carli's Machinery & Supply Co., Inc.,
Allegheny, Pa.

F. M. Hicks & Co., Chicago, Ill.

A. V. Kaiser & Co., 222 S. 3d St., Phila-
delphia, Pa.

Southern Iron & Equipment Co., Atlanta,
Ga.

Thompson-Bonney Co., Brooklyn, N. Y.

Walter A. Zelnicker Supply Co., St. Louis,

Cars, Coke—
Atlas Car & Mfg. Co., Cleveland, O.

Bancroft & Co., Fifth & Chestnut Sts.,
Philadelphia, Pa.

Byram & Co., Detroit, Mich.

Chase Foundry & Mfg. Co., Columbus, O.

Arthur Koppel Co., 66-68 Broad St., New
York.

Ernst Wiener Co., 68 Broad St., New
York.

Cars, Core Oven—

Atlas Car & Mfg. Co., Cleveland, O.
Byram & Co., Detroit, Mich.
Chase Foundry & Mfg. Co., Columbus, O.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Osborn Mfg. Co., Cleveland, O.
Ernst Wiener Co., 68 Broad St., New York.

MERCHANTS.

S. Obermayer Co., Cincinnati, O.

Cars, Dump—

Atlas Car & Mfg. Co., Cleveland, O.
Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
Byram & Co., Detroit, Mich.
Thos. Carlin's Sons, Allegheny, Pa.
Chase Foundry & Mfg. Co., Columbus, O.
Chattanooga Car & Foundry Co., Chattanooga, Tenn.
Jeffrey Mfg. Co., Columbus, O.
W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Arthur Koppel, 66 Broad St., New York.
Link Belt Engineering Co., Nicetown, Philadelphia, Pa.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
Pittsburgh Industrial Iron Works, Pittsburgh, Pa.
Sheffield Car Co., Three Rivers, Mich.
Standard Car & Foundry Co., Pittsburgh, Pa.

B. F. Sturtevant Co., Boston, Mass.
Ernst Wiener Co., 68 Broad St., New York.

MERCHANTS.

Thos. P. Conard & Co., Harrison Bldg., Philadelphia, Pa.
F. M. Hicks & Co., Chicago, Ill.
A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.
Southern Iron & Equipment Co., Atlanta, Ga.

Thompson-Bonney Co., Brooklyn, N. Y.
Walter A. Zelnicker Supply Co., St. Louis.

Cars, Elevator—

Buffalo Wire Works Co., Buffalo, N. Y.
Glen Mfg. Co., Ellwood City, Pa.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Stewart Iron Works Co., Cincinnati, O.
W. S. Tyler Co., Cleveland, O.
Wright Wire Co., Worcester, Mass.

Cars, Foundry—

Atlas Car & Mfg. Co., Cleveland, O.
Byram & Co., Detroit, Mich.
Chattanooga Car & Foundry Co., Chattanooga, Tenn.
C. W. Hunt Co., West New Brighton, N. Y.
W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.
Arthur Koppel, 66 Broad St., New York.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
Osborn Mfg. Co., Cleveland, O.
Pennsylvania Engineering Works, New Castle, Pa.
Sheffield Car Co., Three Rivers, Mich.
Ernst Wiener Co., 68 Broad St., New York.

MERCHANTS.

F. M. Hicks & Co., Chicago, Ill.

Cars, Freight—

Chattanooga Car & Foundry Co., Chattanooga, Tenn.
Standard Car & Foundry Co., Pittsburgh, Pa.

MERCHANTS.

Barclay M. Everson, Pittsburgh, Pa.
F. M. Hicks & Co., Chicago, Ill.
A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.
Southern Iron & Equipment Co., Atlanta, Ga.
Thompson-Bonney Co., Brooklyn, N. Y.
Walter A. Zelnicker Supply Co., St. Louis.

Cars, Gasoline Motor—

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
Sheffield Car Co., Three Rivers, Mich.

Cars, Industrial and Narrow Gauge Railway—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
C. W. Hunt Co., West New Brighton, N. Y.
W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.
Arthur Koppel Co., 66-68 Broad St., New York.
Link Belt Engineering Co., Nicetown, Philadelphia, Pa.
Pittsburgh Industrial Iron Works, Pittsburgh, Pa.

Cars, Logging—

Atlas Car & Mfg. Co., Cleveland, O.
W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.
Arthur Koppel, 66-68 Broad St., N. Y.
Lane Mfg. Co., Montpelier, Vt.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
Sheffield Car Co., Three Rivers, Mich.
Walter A. Zelnicker Supply Co., St. Louis.

Cars, Motor—

Jeffrey Mfg. Co., Columbus, O.
Sheffield Car Co., Three Rivers, Mich.

Cars, Odometer—

Sheffield Car Co., Three Rivers, Mich.

Cars, Ore—

Chase Foundry & Mfg. Co., Columbus, O.

Cars, Plantation—

Atlas Car & Mfg. Co., Cleveland, O.
Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
Chattanooga Car & Foundry Co., Chattanooga, Tenn.
W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.
Arthur Koppel, 66-68 Broad St., N. Y.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
Sheffield Car Co., Three Rivers, Mich.
Ernst Wiener Co., 68 Broad St., New York.

Cars, Platform—

Atlas Car & Mfg. Co., Cleveland, O.
Chattanooga Car & Foundry Co., Chattanooga, Tenn.
Arthur Koppel Co., 66-68 Broad St., New York.

Cars, Pulp—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
Sheffield Car Co., Three Rivers, Mich.

Cars, Push—

Chase Foundry & Mfg. Co., Columbus, O.

Cars, Railroad—

Atlas Car & Mfg. Co., Cleveland, O.
Arthur Koppel, 66-68 Broad St., N. Y.
Sheffield Car Co., Three Rivers, Mich.
Ernst Wiener Co., 68 Broad St., New York.

MERCHANTS

Thomas P. Conard & Co., 119 S. 4th St., Philadelphia, Pa.
Justice Cox, Jr., & Co., Ltd., Land Title Bldg., Philadelphia, Pa.
Dallett & Co., Harrison Bldg., Philadelphia, Pa.

F. M. Hicks & Co., Chicago, Ill.
I. C. Hirsch Iron, Steel & Rail Co., Cincinnati, O.

Cal. Hirsch & Sons Iron & Rail Co., St. Louis, Mo.

A. V. Kaiser & Co., 222 S. Third St., Philadelphia, Pa.

Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.

Pierson & Co., 29 Broadway, N. Y.

Rositter, MacGovern & Co., Inc., 141 Broadway, New York.

Southern Iron & Equipment Co., Atlanta, Ga.

Wonham & Magor, 29 Broadway, N. Y.

Walter A. Zelnicker Supply Co., St. Louis.

Cars, Railroad Hand—

Chase Foundry & Mfg. Co., Columbus, O.

Fairbanks Co., 416 Broome St., New York.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Sheffield Car Co., Three Rivers, Mich.

Ernst Wiener Co., 68 Broad St., New York.

Cars, Rolling Mill—

Atlas Car & Mfg. Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

Arthur Koppel, 66-68 Broad St., N. Y.

Pennsylvania Engineering Works, New Castle, Pa.

Sheffield Car Co., Three Rivers, Mich.

Cars, Ship—

Atlas Car & Mfg. Co., Cleveland, O.

Brown Hoisting Machinery Co., Cleveland, O.

Chase Foundry & Mfg. Co., Columbus, O.

Interstate Engineering Co., Bedford, O.

Arthur Koppel, 66-68 Broad St., N. Y.

Pennsylvania Engineering Works, New Castle, Pa.

Sheffield Car Co., Three Rivers, Mich.

Wellman-Seaver-Morgan Co., Cleveland, O.

Ernst Wiener Co., 68 Broad St., New York.

Cars, Steel—

Atlas Car & Mfg. Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

Arthur Koppel, 66-68 Broad St., N. Y.

Sheffield Car Co., Three Rivers, Mich.

Ernst Wiener Co., 68 Broad St., New York.

MERCHANTS

Justice Cox, Jr., & Co., Ltd., Land Title Bldg., Philadelphia, Pa.

A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.

Wonham & Magor, 29 Broadway, N. Y.

Walter A. Zelnicker Supply Co., St. Louis.

Cars, Steel Mine—

Arthur Koppel Co., 66-68 Broad St., New York.

Sheffield Car Co., Three Rivers, Mich.

Wellman-Seaver-Morgan Co., Cleveland, O.

Cars, Sugar Cane—

Atlas Car & Mfg. Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

Arthur Koppel, 66-68 Broad St., N. Y.

Sheffield Car Co., Three Rivers, Mich.

Ernst Wiener Co., 68 Broad St., New York.

Cars, Tank—

Atlas Car & Mfg. Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Sheffield Car Co., Three Rivers, Mich.

Tudor Boiler Mfg. Co., Cincinnati, O.

MERCHANTS

A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.

Cars, Track Laying—

Sheffield Car Co., Three Rivers, Mich.

Cars, Transfer—

Byram & Co., Detroit, Mich.

Chase Foundry & Mfg. Co., Columbus, O.

Arthur Koppel Co., 66-68 Broad St., New York.

Cars, Velocipede—

Sheffield Car Co., Three Rivers, Mich.

Cars, Wagon Transfer—

Sheffield Car Co., Three Rivers, Mich.

Cars, Water and Acid Bosh—

Atlas Car & Mfg. Co., Cleveland, O.

Cars, Weed Cutting, Railroad—

Sheffield Car Co., Three Rivers, Mich.

Cartridge Machines—

Blake & Johnson, Waterbury, Ct.

E. J. Manville Mach. Co., Waterbury, Ct.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Cartridges—

Peters Cartridge Co., Cincinnati, O.

Union Metallic Cartridge Co., Bridgeport, Ct.

Carts, Barrel—

Bateman Mfg. Co., Grenloch, N. J.

Fairbanks Co., 416 Broome St., New York.

Carts, Crushed Ice—

Sheffield Car Co., Three Rivers, Mich.

Carts, Delivery—

Fairbanks Co., 416 Broome St., New York.

Carts, Dump—

Fairbanks Co., 416 Broome St., New York.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Carts, Go—

(See Go-Carts.)

Carts, Hose—

Fairbanks Co., 416 Broome St., New York.

Goulds Mfg. Co., Seneca Falls, N. Y.

Carts, Lumber—

Fairbanks Co., 416 Broome St., New York.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Carts, Push—

Bateman Mfg. Co., Grenloch, N. J.

Chicago Scale Co., 282-286 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.

R. W. Whitehurst Co., Norfolk, Va.

Carts, Steel—

F. H. Evans, Brooklyn, N. Y.

Fairbanks Co., 416 Broome St., New York.

Sterling Wheelbarrow Co., Milwaukee, Wis.

Carving Tools—

Charles Buck Edge Tool Co., Millbury, Mass.

Buck Bros., Millbury, Mass.

Millers Falls Co., 28 Warren St., N. Y.

Casement Adjusters, Fasteners—

(See Adjusters, Fasteners.)

Cases, Billhead and Envelope—

Merriam Mfg. Co., Durham, Ct.

Cases, Blacking—
Udell Works, Indianapolis, Ind.

Cases, Card, Silver Plated—
International Silver Co., 9-13 Maiden Lane, New York.

Cases, Catalogue—
J. D. Warren Mfg. Co., Chicago, Ill.

Cases, Cigar and Cigarette—
Scott Mfg. Co., Waterbury, Ct.

Cases, Cutlery—
J. D. Warren Mfg. Co., Chicago, Ill.

Cases, Display—
J. D. Warren Mfg. Co., Chicago, Ill.

Cases, Document and File, Steel—
Van Dorn Iron Works Co., Cleveland, O.

Cases, Drill—
Cleveland Twist Drill Co., Cleveland, O.

Cases, Match—
Standard Tool Co., Cleveland, O.

Cases, Steel—
International Silver Co., 9-13 Maiden Lane, New York.

Cases, Packing—
E. B. Estes & Sons, 45-47 John St., N. Y.

Cases, Railroad Ticket—
American Railway Supply Co., 24 Park Place, New York.

Cases, Screw and Bolt—
A. H. Green, 97-101 Warren St., N. Y.

Cases, Sewing Machine—
W. C. Heller & Co., Montpelier, O.

Cases, Seed—
J. D. Warren Mfg. Co., Chicago, Ill.

Cash, Recorder, Auto-graphic—
W. C. Heller & Co., Montpelier, O.

Casing, Oil Well—
(See Recorders, Cash, Autographic.)

Cash, Oil Well—
La Belle Iron Works, Steubenville, O.

Cash, Oil Well—
Mark Mfg. Co., Chicago, Ill.

Cash, Oil Well—
National Tube Co., Pittsburgh, Pa.

Casings, Elevator Steel—
W. J. Clark Co., Salem, O.

Caskets, Jewel, Silver Plated—
(See Jewel Caskets, Silver Plated.)

Casks, Shipping—
W. J. Clark Co., Salem, O.

Cast Iron, Brazing—
American Ferroflux Brazing Co., Arcade Bldg., Philadelphia, Pa.

Cast Iron Columns—
(See Iron Work, Builders, &c.)

Cast Iron Enamels—
(See Enamels, Acid Proof and Cast Iron.)

Cast Washers—
(See Washers, Cast.)

Casters, Ball and Roller Bearing—
George P. Clark Co., Windsor Locks, Ct.

Casters, Bed, Plate, &c.—
M. B. Schenck Co., Meriden, Ct.

Casters, Metal Bed—
Smith & Hemenway Co., 108-110 Duane St., New York.

Casters, Metal Bed—
Universal Caster & Foundry Co., 1173 Broadway, New York.

Casters, Bed, Plate, &c.—
Geo. P. Clark Co., Windsor Locks, Ct.

Casters, Rubber Wheel—
Glen Rock Stamping Co., Glen Rock, Pa.

Casters, Stove Leg—
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Casters, Truck—
Reading Hardware Co., Reading, Pa.

Castings, Architectural—
M. B. Schenck Co., Meriden, Ct.

Castings, Blast Furnace—
Schreiber & Conchar Mfg. Co., Dubuque, Ia.

Castings, Blast Furnace—
Arthur G. McKee, Cleveland, O.

Castings, Air Furnace—
Wellman-Seaver-Morgan Co., Cleveland, O.

Castings, Air Furnace—
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

Castings, Aluminum—
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

Castings, Aluminum—
J. B. & J. M. Cornell, 26th St. and 11th Ave., New York.

Castings, Aluminum—
Lehigh Foundry Co., Fullerton, Pa.

Castings, Aluminum—
Philadelphia Roll & Machine Co., 23d St. & Washington ave., Philadelphia, Pa.

Castings, Aluminum—
American Ring Co., Waterbury, Ct.

Castings, Aluminum—
Bancroft & Co., Drexel Bldg., Philadelphia, Pa.

Castings, Aluminum—
Lridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.

Castings, Aluminum—
John W. Clark, Albany, N. Y.

Castings, Aluminum—
P. J. Donovan Brass Foundry Co., Bridgeport, Ct.

Castings, Aluminum—
Eynon-Evans Mfg. Co., 1517 Clearfield St., Philadelphia, Pa.

Castings, Aluminum—
Helwig Mfg. Co., St. Paul, Minn.

Castings, Aluminum—
Andrew E. Hendryx Co., New Haven, Ct.

Castings, Aluminum—
Imperial Brass Mfg. Co., 221 S. Jefferson St., Chicago, Ill.

Castings, Aluminum—
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

Castings, Aluminum—
Lough-Scott Co., 26 Cortlandt St., New York.

Castings, Aluminum—
Lunkheimer Co., Cincinnati, O.

Castings, Aluminum—
Monarch Grubber Co., Lone Tree, Ia.

Castings, Aluminum—
Ohio Brass Co., Mansfield, O.

Castings, Aluminum—
Pittsburgh Reduction Co., Pittsburgh, Pa.

Castings, Aluminum—
Paul S. Reeves & Son, Philadelphia, Pa.

Castings, Aluminum—
Riverside Metal Co., Riverside, N. J.

Castings, Aluminum—
W. G. Rowell & Co., Bridgeport, Ct.

Castings, Aluminum—
Turner Brass Works, 41 No. Franklin St., Chicago, Ill.

Castings, Aluminum—
E. W. Vanduzen Co., Cincinnati, O.

Castings, Aluminum—
Walker Foundry Co., Erie, Pa.

Castings, Aluminum—
Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.

Castings, Architectural—
Browning Engineering Co., Cleveland, O.

Castings, Architectural—
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

Castings, Architectural—
J. B. & J. M. Cornell, 26th St. and 11th Ave., New York.

Castings, Architectural—
Hooven, Owens, Rentschler Co., Hamilton, O.

Casters, Dinner, Pickle, Salad, &c., Silver Plated—
International Silver Co., 9-13 Maiden Lane, New York.

Casters, Metal Bed—
M. B. Schenck Co., Meriden, Ct.

Casters, Piano—
(See Casters, Bed, Plate, &c.)

Casters, Rubber Wheel—
Geo. P. Clark Co., Windsor Locks, Ct.

Casters, Stove Leg—
Elastic Tip Co., Boston, Mass.

Casters, Truck—
Kramer Bros. Foundry Co., Dayton, O.

Casters, Truck—
Geo. P. Clark Co., Windsor Locks, Ct.

Casters, Truck—
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Casters, Truck—
Plunger & Henger Mfg. Co., St. Louis, Mo.

Casters, Truck—
Reading Hardware Co., Reading, Pa.

Casters, Truck—
M. B. Schenck Co., Meriden, Ct.

Casters, Truck—
Schreiber & Conchar Mfg. Co., Dubuque, Ia.

Castings, Blast Furnace—
Arthur G. McKee, Cleveland, O.

Castings, Blast Furnace—
Wellman-Seaver-Morgan Co., Cleveland, O.

Castings, Air Furnace—
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

Castings, Aluminum—
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

Castings, Aluminum—
J. B. & J. M. Cornell, 26th St. and 11th Ave., New York.

Castings, Aluminum—
Lehigh Foundry Co., Fullerton, Pa.

Castings, Aluminum—
Philadelphia Roll & Machine Co., 23d St. & Washington ave., Philadelphia, Pa.

Castings, Aluminum—
American Ring Co., Waterbury, Ct.

Castings, Aluminum—
Bancroft & Co., Drexel Bldg., Philadelphia, Pa.

Castings, Aluminum—
Lridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.

Castings, Aluminum—
John W. Clark, Albany, N. Y.

Castings, Aluminum—
P. J. Donovan Brass Foundry Co., Bridgeport, Ct.

Castings, Aluminum—
Eynon-Evans Mfg. Co., 1517 Clearfield St., Philadelphia, Pa.

Castings, Aluminum—
Helwig Mfg. Co., St. Paul, Minn.

Castings, Aluminum—
Andrew E. Hendryx Co., New Haven, Ct.

Castings, Aluminum—
Imperial Brass Mfg. Co., 221 S. Jefferson St., Chicago, Ill.

Castings, Aluminum—
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

Castings, Aluminum—
Lough-Scott Co., 26 Cortlandt St., New York.

Castings, Aluminum—
Lunkheimer Co., Cincinnati, O.

Castings, Aluminum—
Monarch Grubber Co., Lone Tree, Ia.

Castings, Aluminum—
Ohio Brass Co., Mansfield, O.

Castings, Aluminum—
Pittsburgh Reduction Co., Pittsburgh, Pa.

Castings, Aluminum—
Paul S. Reeves & Son, Philadelphia, Pa.

Castings, Aluminum—
Riverside Metal Co., Riverside, N. J.

Castings, Aluminum—
W. G. Rowell & Co., Bridgeport, Ct.

Castings, Aluminum—
Turner Brass Works, 41 No. Franklin St., Chicago, Ill.

Castings, Aluminum—
E. W. Vanduzen Co., Cincinnati, O.

Castings, Aluminum—
Walker Foundry Co., Erie, Pa.

Castings, Aluminum—
Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.

Castings, Architectural—
Browning Engineering Co., Cleveland, O.

Castings, Architectural—
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

Castings, Architectural—
J. B. & J. M. Cornell, 26th St. and 11th Ave., New York.

Castings, Architectural—
Hooven, Owens, Rentschler Co., Hamilton, O.

Standard Car & Foundry Co., Pittsburgh.
Walker Foundry Co., Erie, Pa.
Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.

West Side Foundry Co., Troy, N. Y.

Castings, Automobile—
Acme Steel & Malleable Iron Works,
Buffalo, N. Y.

Crucible Steel Casting Co., Lansdowne,
Pa.

Homer F. Livermore, Boston, Mass.
Lough-Scott Co., 26 Cortlandt St., New
York.

Ohio Brass Co., Mansfield, O.
Pequonnock Foundry, Inc., Bridgeport,
Ct.

Susquehanna Casting Co., Wrightsville,
Pa.

Walker Foundry Co., Erie, Pa.
Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.

Worcester Steel Foundry Co., Worcester,
Mass.

Castings, Bell Metal—
P. J. Donovan Brass Foundry Co.,
Bridgeport, Ct.

Ohio Brass Co., Mansfield, O.
E. W. Vanduzen Co., Cincinnati, O.

Castings, Bench Leg—
Bethlehem Foundry & Machine Co.,
Bethlehem, Pa.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Case Mfg. Co., Columbus, O.
Chester Steel Castings Co., 407 Sansom
St., Philadelphia, Pa.

Lough-Scott Co., 26 Cortlandt St., New
York.

B. F. Sturtevant Co., Boston, Mass.
Walker Foundry Co., Erie, Pa.

Castings, Bicycle—
Chester Steel Castings Co., 407 Sansom
St., Philadelphia, Pa.

Stanley G. Flagg & Co., Philadelphia, Pa.

Castings, Brass—
A. Allan & Son, 486 Greenwich St., New
York.

American Ring Co., Waterbury, Ct.
American Tool & Machine Co., Boston.

American Valve & Meter Co., Cincinnati, O.

Bancroft & Co., Drexel Bldg., Philadelphia, Pa.

Barry & Zecher Co., Lancaster, Pa.
Bridgeport Deoxidized Bronze & Metal
Co., Bridgeport, Ct.

Bridgman Bros. Co., 1422-28 Washington
Ave., Philadelphia, Pa.

Carnegie Steel Co., Pittsburgh, Pa.
Chattanooga Car & Foundry Co., Chattanooga, Tenn.

John W. Clark, Albany, N. Y.
Columbia Machine Works & Malleable
Iron Co., Brooklyn, N. Y.

Julian D'Este Co., Boston, Mass.
Dobbie Foundry & Machine Co., Niagara
Falls, N. Y.

P. J. Donovan Brass Foundry Co.,
Bridgeport, Ct.

Erie Stamping & Mfg. Co., Erie, Pa.
Eymon-Evans Mfg. Co., 1507 Clearfield St.,
Philadelphia, Pa.

Helwig Mfg. Co., St. Paul, Minn.
Andrew R. Hendryx Co., New Haven, Ct.
Hubley Mfg. Co., Lancaster, Pa.

Imperial Brass Mfg. Co., 241 S. Jefferson
St., Chicago, Ill.

H. B. Ives Co., New Haven, Ct.
Homer F. Livermore, Boston, Mass.

Lough-Scott Co., 26 Cortlandt St., New
York.

Lunkenheimer Co., Cincinnati, O.
Mesta Machine Co., Pittsburgh, Pa.

Monarch Grubber Co., Lone Tree, Ia.
National Electric Co., Milwaukee, Wis.

New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

Nolte Brass Co., Springfield, O.
North Bros. Mfg. Co., Philadelphia, Pa.

Ohio Brass Co., Mansfield, O.
Henry Perkins Co., Bridgewater, Mass.

Pittsburgh Valve Foundry & Construction
Co., Pittsburgh, Pa.

Pleuger & Henger Mfg. Co., St. Louis, Mo.
Paul S. Reeves & Son, Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.
W. G. Rowell & Co., Bridgeport, Ct.

I. S. Spencer's Sons, Guilford, Ct.
Standard Car & Foundry Co., Pittsburgh.

Turner Brass Works, 44 No. Franklin St.,
Chicago, Ill.

Turner & Seymour Mfg. Co., Torrington,
Ct.

E. W. Vanduzen Co., Cincinnati, O.
Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.

West Side Foundry Co., Troy, N. Y.
Whitlock Coil Pipe Co., Hartford, Ct.

Walter W. Woodruff & Sons Co., Mount
Carmel, Ct.

Castings, Bronze—
A. Allan & Son, 486 Greenwich St., New
York.

Bancroft & Co., Drexel Bldg., Philadelphia, Pa.

Bridgeport Deoxidized Bronze & Metal
Co., Bridgeport, Ct.

Carnegie Steel Co., Pittsburgh, Pa.
Chattanooga Car & Foundry Co., Chattanooga, Tenn.

John W. Clark, Albany, N. Y.

P. J. Donovan Brass Foundry Co.,
Bridgeport, Ct.

Julian D'Este Co., Boston, Mass.
Eymon-Evans Mfg. Co., 1507 Clearfield St.,
Philadelphia, Pa.

Andrew R. Hendryx Co., New Haven, Ct.
Hubley Mfg. Co., Lancaster, Pa.

H. B. Ives Co., New Haven, Ct.
Lough-Scott Co., 26 Cortlandt St., New
York.

Lunkenheimer Company, Cincinnati, O.
Monarch Grubber Co., Lone Tree, Ia.

Nolte Brass Co., Springfield, O.
Ohio Brass Co., Mansfield, O.

Phosphor Bronze Smelting Co., 2200 Wash-
ington Ave., Philadelphia, Pa.

Pleuger & Henger Mfg. Co., St. Louis, Mo.
Paul S. Reeves & Son, Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.
W. G. Rowell & Co., Bridgeport, Ct.

I. S. Spencer's Sons, Guilford, Ct.
Standard Car & Foundry Co., Pittsburgh.
Turner Brass Works, 44 No. Franklin St.,
Chicago, Ill.

E. W. Vanduzen Co., Cincinnati, O.
Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.

Castings, Chemical Works—
Chester Steel Castings Co., 407 Sansom
St., Philadelphia, Pa.

Francis & Nygren Foundry Co., 1201 Fillmore St., Chicago, Ill.
 Lehigh Foundry Co., Fullerton, Pa.
 Lunkenheimer Co., Cincinnati, O.
 National Steel Foundry Co., New Haven, Ct.
 Ohio Brass Co., Mansfield, O.
 Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
Castings, Chrome Steel—
 Chrome Steel Works, Chrome, N. J.
 Worcester Steel Foundry Co., Worcester, Mass.
Castings, Composition—
 A. Allan & Son, 486 Greenwich St., New York.
 P. J. Donovan Brass Foundry Co., Bridgeport, Ct.
 Julian D'Este Co., Boston, Mass.
 H. B. Ives Co., New Haven, Ct.
 Lough-Scott Co., 26 Cortlandt St., New York.
 Ohio Brass Co., Mansfield, O.
 Henry Perkins Co., Bridgewater, Mass.
 Paul S. Reeves & Son, Philadelphia, Pa.
 Riverside Metal Co., Riverside, N. J.
 I. S. Spencer's Sons, Guilford, Ct.
 E. W. Vanduzen Co., Cincinnati, O.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
 Walter W. Woodruff & Sons Co., Mount Carmel, Ct.
Castings, Copper—
 Bancroft & Co., Drexel Bldg., Philadelphia, Pa.
 Bridgeport, Deoxidized Bronze & Metal Co., Bridgeport, Ct.
 P. J. Donovan Brass Foundry Co., Bridgeport, Ct.
 Eymon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.
 Lough-Scott Co., 26 Cortlandt St., New York.
 Nolte Brass Co., Springfield, O.
 Ohio Brass Co., Mansfield, O.
 Pienger & Henger Mfg. Co., St. Louis, Mo.
 Paul S. Reeves & Son, Philadelphia, Pa.
 Riverside Metal Co., Riverside, N. J.
 Turner Brass Works, 44 No. Franklin St., Chicago, Ill.
 E. W. Vanduzen Co., Cincinnati, O.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
Castings, Crucible Steel—
 Baldwin Steel Co., 133 Reade St., N. Y.
 Crucible Steel Casting Co., Lansdowne, Pa.
 Lough-Scott Co., 26 Cortlandt St., New York.
 Worcester Steel Foundry Co., Worcester, Mass.
Castings, Die Molded, Precision—
 H. H. Franklin Mfg. Co., Syracuse, N. Y.
 Veeder Mfg. Co., Hartford, Ct.
Castings, Dynamo and Motor—
 Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
 Hendrick Mfg. Co., Carbondale, Pa.
 Walker Foundry Co., Erie, Pa.
 Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Castings, Engine Model—
 Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
Castings, Finished—
 Allen Rolling Mills, Allentown, Pa.
 American Bridge Co. of New York, 42 Broadway, New York.
 Barry & Zecher Co., Lancaster, Pa.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
 Julian D'Este Co., Boston, Mass.
 H. H. Franklin Mfg. Co., Syracuse, N. Y.
 Hubley Mfg. Co., Lancaster, Pa.
 Lehigh Foundry Co., Fullerton, Pa.
 Lough-Scott Co., 26 Cortlandt St., New York.
 Ohio Brass Co., Mansfield, O.
 Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.
 Pittsburgh Industrial Iron Works, Pittsburgh, Pa.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
Castings for Sugar Work—
 Bethlehem Foundry & Machine Co., S. Bethlehem, Pa.
 Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
Castings, Furnace—
 Carnegie Steel Co., Pittsburgh, Pa.
 Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
 Ford & Donnelly, Kokomo, Ind.
 Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.
 Taylor-Wilson Mfg. Co., McKees Rocks, Pa.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
Castings, Galvanized, Gray Iron and Malleable—
 Cleveland Galvanizing Works, Cleveland.
Castings, Gas and Gasoline Engine—
 Pequonock Foundry, Inc., Bridgeport, Ct.
Castings, Gas or Gasoline Engine Cylinder—
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Walker Foundry Co., Erie, Pa.
Castings, Governor—
 Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
Castings, Gray Iron—
 Allentown Rolling Mills, Allentown, Pa.
 Athol Machine Co., Athol, Mass.
 Badger State Machine Co., Janesville, Wis.
 Bancroft & Co., Drexel Bldg., Philadelphia, Pa.
 Barnes Mfg. Co., Mansfield, Ohio.
 Baum Separator & Machine Co., Mannheim, Pa.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
 E. W. Bliss Co., Brooklyn, N. Y.
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Browning Engineering Co., Cleveland, O.
 Buffalo Foundry Co., Buffalo, N. Y.

- Buhl Malleable Co., Detroit, Mich.
 H. W. Caldwell & Son Co., Western Ave., 17th & 18th Sts., Chicago, Ill.
 Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
 Cleveland Galvanizing Works, Cleveland.
 Colonial Foundry & Machinery Co., South Norwalk, Ct.
 Columbia Grey Iron Casting Co., Columbia, Pa.
 J. K. Dimmick & Co., New Land Title Bldg., Philadelphia, Pa.
 Enterprise Foundry & Fence Co., Indianapolis, Ind.
 Stanley G. Flagg & Co., Philadelphia, Pa.
 Forest City Foundry & Mfg. Co., Cleveland, O.
 Fort Pitt Malleable Co., Pittsburgh, Pa.
 Gray Iron Foundry Co., Reading, Pa.
 Howard Iron Works, Buffalo, N. Y.
 Hubley Mfg. Co., Lancaster, Pa.
 Janney, Steinmetz & Co., Drexel Bld Philadelphia, Pa.
 Jarecki Mfg. Co., Erie, Pa.
 Kinsley Iron & Machine Co., Canton, Mass.
 Lehigh Foundry Co., Fullerton, Pa.
 J. H. Lingle, Bellefonte, Pa.
 Homer F. Livermore, Boston, Mass.
 Lough-Scott Co., 26 Cortlandt St., New York.
 Malleable Iron Works, New Britain, Ct.
 Charles Millar & Son Co., Utica, N. Y.
 Myrick Machine Co., Olean, N. Y.
 National Sewing Machine Co., Belvidere, Ill.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
 North Bros. Mfg. Co., Lehigh Ave. & American St., Philadelphia, Pa.
 Palmers & De Mooy Foundry Co., Cleveland, O.
 Pequonnock Foundry, Inc., Bridgeport, Ct.
 Henry Perkins Co., Bridgewater, Mass.
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.
 Pleuger & Henger Mfg. Co., St. Louis, Mo.
 Poole Engineering & Machine Co., Baltimore, Md.
 Poughkeepsie Foundry & Machine Co., Poughkeepsie, N. Y.
 Louis Sacks, Newark, N. J.
 Schreiber & Conchar Mfg. Co., Dubuque, Ia.
 Sessions Foundry Co., Bristol, Ct.
 I. S. Spencer's Sons, Guilford, Ct.
 Standard Oil & Foundry Co., Pittsburgh.
 Sterling Emery Wheel Mfg. Co., Tiffin, O.
 Stoever Foundry & Mfg. Co., Myerstown, Pa.
 Straight Line Foundry Co., Syracuse, N. Y.
 Susquehanna Casting Co., Wrightsville, Pa.
 Taylor & Boggis Foundry Co., Cleveland.
 Turner & Seymour Mfg. Co., Torrington, Ct.
 Vilter Mfg. Co., Milwaukee, Wis.
 Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.
 Walker Foundry Co., Erie, Pa.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
 West Side Foundry Co., Troy, N. Y.
 Wrightsville Hardware Co., Wrightsville, Pa.
- Castings, Gun Iron—**
 Buffalo Foundry Co., Buffalo, N. Y.
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.
 Poole Engineering & Machine Co., Baltimore, Md.
 Taylor-Wilson Mfg. Co., McKees Rocks, Pa.
 E. W. Vanduzen Co., Cincinnati, O.
- Castings, Iron—**
 Allentown Rolling Mills, Allentown, Pa.
 American Bridge Co. of New York, 42 Broadway, New York.
 American Tool & Machine Co., Boston.
 Badger State Machine Co., Janesville, Wis.
 Bancroft & Co., Drexel Bldg., Philadelphia, Pa.
 Barbour-Stockwell Co., Cambridgeport, Mass.
 Barry & Zecher Co., Lancaster, Pa.
 Bausch Machine Tool Co., Springfield, Mass.
 Belmont Iron Works, Inc., Philadelphia.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
 Birmingham Iron Foundry, Derby, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Buffalo Foundry Co., Buffalo, N. Y.
 Builders Iron Foundry, Providence, R. I.
 H. W. Caldwell & Son Co., Western Ave., 17th & 18th Sts., Chicago, Ill.
 Thos. Carlin's Sons, Allegheny, Pa.
 Carnegie Steel Co., Pittsburgh, Pa.
 Chattanooga Car & Foundry Co., Chattanooga, Tenn.
 John W. Clark, Albany, N. Y.
 Colonial Foundry & Machine Co., So. Norwalk, Ct.
 Columbia Grey Iron Casting Co., Columbia, Pa.
 Columbia Machine Works & Malleable Iron Co., Brooklyn, N. Y.
 J. B. & J. M. Cornell, 239 11th Ave., New York.
 J. K. Dimmick & Co., New Land Title Bldg., Philadelphia, Pa.
 Dimmick Pipe Co., Birmingham, Ala.
 Enterprise Foundry & Fence Co., Indianapolis, Ind.
 Farrel Foundry & Mach. Co., Ansonia, Ct.
 Stanley G. Flagg & Co., Philadelphia, Pa.
 Ford & Donnelly, Kokomo, Ind.
 Forest City Foundry & Mfg. Co., Cleveland, O.
 I. & E. Greenwald Co., Cincinnati, O.
 Hillis & Jones Co., Wilmington, Del.
 George A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.
 Hooven, Owens, Rentschler Co., Hamilton, O.
 Hubley Mfg. Co., Lancaster, Pa.
 Humphrey Machine Co., Keene, N. H.
 Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
 Lebanon Chain Works, Lebanon, Pa.
 Lehigh Foundry Co., Fullerton, Pa.
 Lough-Scott Co., 26 Cortlandt St., New York.
 Malleable Iron Works, New Britain, Ct.
 Mesta Machine Co., Pittsburgh, Pa.
 Chas. Millar & Son Co., Utica, N. Y.

National Electric Co., Milwaukee, Wis.
 Novelty Iron Works, Dubuque, Ia.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Pennsylvania Engineering Works, New Castle, Pa.
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.
 Pittsburgh Industrial Iron Works, Pittsburgh, Pa.
 Pittsburgh Mfg. Co., Pittsburgh, Pa.
 Pittsburgh Valve Foundry & Construction Co., Pittsburgh, Pa.
 Poole Engineering & Machine Co., Baltimore, Md.
 Poughkeepsie Foundry & Machine Co., Poughkeepsie, N. Y.
 Robins Conveying Belt Co., Park Row Bldg., New York.
 Royersford Foundry & Machine Co., Royersford, Pa.
 Sessions Foundry Co., Bristol, Ct.
 Soule Steam Feed Works, Meridian, Miss.
 I. S. Spencer's Sons, Guilford, Ct.
 Susquehanna Casting Co., Wrightsville, Pa.
 Taylor & Bogzis Foundry Co., Cleveland.
 Taylor-Wilson Mfg. Co., Allegheny, Pa.
 Wm. Tod Co., Youngstown, O.
 United States Cast Iron Pipe & Foundry Co., 71 Broadway, New York.
 Vilter Mfg. Co., Milwaukee, Wis.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
 Wellman-Beaver-Morgan Co., Cleveland, O.
 West Side Foundry Co., Troy, N. Y.
 Robert Wetherill & Co., Chester, Pa.
 Wheeling Mold & Foundry Co., Wheeling, W. Va.
 R. W. Whitehurst Co., Norfolk, Va.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
 Wrightsville Hardware Co., Wrightsville, Pa.

MERCHANTS.

Reed F. Blair & Co., Pittsburgh, Pa.
 C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.
 Homer F. Livermore, Boston, Mass.
 Phillips-Laffite Co., Pennsylvania Bldg., Philadelphia, Pa.
 Charles G. Shepard, Buffalo, N. Y.

Castings, Iron, Special—

Barry & Zecher Co., Lancaster, Pa.
 Buffalo Foundry Co., Buffalo, N. Y.
 Hooven, Owens, Rentschler Co., Hamilton, O.
 Humphrey Machine Co., Keene, N. H.
 Lehigh Foundry Co., Fullerton, Pa.
 Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia.
 Pittsburgh Industrial Iron Works, Pittsburgh, Pa.
 Poughkeepsie Foundry & Machine Co., Poughkeepsie, N. Y.
 Schreiber & Conchar Mfg. Co., Dubuque, Ia.
 Susquehanna Casting Co., Wrightsville, Pa.
 United States Cast Iron & Foundry Co., 71 Broadway, New York.
 Walker Foundry Co., Erie, Pa.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.

Castings, Iron, Thermit Process—

Goldschmidt Thermit Co., 43 Exchange Pl., New York.

Castings, Lathe—

Buffalo Foundry Co., Buffalo, N. Y.
 Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
 Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia.
 Worcester Steel Foundry Co., Worcester, Mass.

Castings, Lead—

American Tool & Machine Co., Boston, Mass.
 P. J. Donovan Brass Foundry Co., Bridgeport, Ct.
 Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.

Castings, Locomotive and Car—

Buffalo Foundry Co., Buffalo, N. Y.
 Carnegie Steel Co., Pittsburgh, Pa.
 Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
 Humphrey Machine Co., Keene, N. H.
 National Steel Foundry Co., New Haven, Ct.
 Walker Foundry Co., Erie, Pa.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.

Castings, Malleable Iron—

Acme Steel & Malleable Iron Works, Buffalo, N. Y.
 Arcade Malleable Iron Co., Worcester, Mass.

Bancroft & Co., Drexel Bldg., Philadelphia, Pa.
 Browning Engineering Co., Cleveland, O.
 Buhl Malleable Co., Detroit, Mich.
 Chisholm & Moore Mfg. Co., Cleveland, O.
 Cleveland Galvanizing Works, Cleveland.
 Columbia Machine Works & Malleable Iron Co., Brooklyn, N. Y.
 Stanley G. Flagg & Co., Philadelphia, Pa.
 Fort Pitt Malleable Co., Pittsburgh, Pa.
 Hammer & Co., Branford, Ct.
 Haven Malleable Castings Co., Cincinnati, O.
 Helwig Mfg. Co., St. Paul, Minn.
 Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
 Jarecki Mfg. Co., Erie, Pa.
 Homer F. Livermore, Boston, Mass.
 Lough-Scott Co., 26 Cortlandt St., New York.
 Malleable Iron Works, New Britain, Ct.
 Standard Car & Foundry Co., Pittsburgh.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
 Walter W. Woodruff & Sons Co., Mt. Carmel, Ct.

Castings, Manganese

Bronze—

P. J. Donovan Brass Foundry Co., Bridgeport, Ct.
 Lough-Scott Co., 26 Cortlandt St., New York.

Lunkenheimer Co., Cincinnati, O.
 Paul S. Reeves & Son, Philadelphia, Pa.
 Riverside Metal Co., Riverside, N. J.
 E. W. Anduzen Co., Cincinnati, O.

Castings, Manganese Steel—

Taylor Iron & Steel Co., High Bridge, N. J.

- Castings, Man Hole, Cistern, Cover, Sewer, Gutter, Crossing, &c.**—
(See Iron Work, Builders'.)
- Castings, Marine, Machine, &c.**—
American Steel Foundries, Fisher Bldg., Chicago, Ill.
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
Buffalo Foundry Co., Buffalo, N. Y.
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
Ford & Donnelly, Kokomo, Ind.
Humphrey Machine Co., Keene, N. H.
Lehigh Foundry Co., Fullerton, Pa.
Henry Perkins Co., Bridgewater, Mass.
Poughkeepsie Foundry & Machine Co., Poughkeepsie, N. Y.
Standard Car & Foundry Co., Pittsburgh.
Taylor-Wilson Mfg. Co., McKees Rocks, Pa.
United States Cast Iron Pipe & Foundry Co., 71 Broadway, New York.
Walker Foundry Co., Erie, Pa.
Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
- Castings, Nickel Steel**—
Taylor Iron & Steel Co., High Bridge, N. J.
Worcester Steel Foundry Co., Worcester, Mass.
- Castings, Phosphor-Bronze**—
American Valve & Meter Co., Cincinnati, O.
P. J. Donovan Brass Foundry Co., Bridgeport, Ct.
George Krouse, Jersey City, N. J.
Lough-Scott Co., 26 Cortlandt St., New York.
Lunkenheimer Co., Cincinnati, O.
Nolte Brass Co., Springfield, O.
Ohio Brass Co., Mansfield, O.
Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
Paul S. Reeves & Son, Philadelphia, Pa.
Riverside Metal Co., Riverside, N. J.
E. W. Vanduzen Co., Cincinnati, O.
- Castings, Piano Plate**—
Henry Perkins Co., Bridgewater, Mass.
- Castings, Plow**—
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
R. W. Whitehurst Co., Norfolk, Va.
- Castings, Precision**—
(See Castings, Die Molded.)
- Castings, Pulley**—
Case Mfg. Co., Columbus, O.
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
Humphrey Machine Co., Keene, N. H.
Poole Engineering & Machine Co., Baltimore, Md.
Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
- Castings, Rolling Mill**—
Barry & Zecher Co., Lancaster, Pa.
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
Birmingham Iron Foundry, Derby, Ct.
Buffalo Foundry Co., Buffalo, N. Y.
Thos. Carlin's Sons, Allegheny, Pa.
- Carnegie Steel Co., Pittsburgh, Pa.
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
George A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.
Hooven, Owens, Rentschler Co., Hamilton, O.
Lehigh Foundry Co., Fullerton, Pa.
Lewis Foundry & Machine Co., Pittsburgh, Pa.
Mesta Machine Co., Pittsburgh, Pa.
National Steel Foundry Co., New Haven, Ct.
Pennsylvania Engineering Works, New Castle, Pa.
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.
Poole Engineering & Machine Co., Baltimore, Md.
Seaboard Steel Casting Co., Chester, Pa.
Wm. Tod Co., Youngstown, O.
Wellman-Seaver-Morgan Co., Cleveland, O.
Wheeling Mold & Foundry Co., Wheeling, W. Va.
- Castings, Semi-Steel**—
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
Birmingham Iron Foundry, Derby, Ct.
W. H. Caldwell & Son Co., Western Ave., 17th & 18th Sts., Chicago, Ill.
Carnegie Steel Co., Pittsburgh, Pa.
Francis & Nygren Foundry Co., 1201 Fillmore St., Chicago, Ill.
Lough-Scott Co., 26 Cortlandt St., New York.
Mesta Machine Co., Pittsburgh, Pa.
National Electric Co., Milwaukee, Wis.
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
Taylor-Wilson Mfg. Co., McKees Rocks, Pa.
- Castings, Stamp Mill**—
Buffalo Foundry Co., Buffalo, N. Y.
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
Chrome Steel Works, Chrome, N. J.
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.
Seaboard Steel Casting Co., Chester, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.
- Castings, Steel**—
Acme Steel & Malleable Iron Works, Buffalo, N. Y.
American Bridge Co. of New York, 42 Broadway, New York.
American Steel Foundries, Fisher Bldg., Chicago, Ill.
Arcade Malleable Iron Co., Worcester, Mass.
Bancroft & Co., Drexel Bldg., Philadelphia, Pa.
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
Birmingham Iron Foundry, Derby, Ct.
Browning Engineering Co., Cleveland, O.
Carnegie Steel Co., Pittsburgh, Pa.
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
Chrome Steel Works, Chrome, N. J.
Crucible Steel Casting Co., Lansdowne, Pa.
Stanley G. Flagg & Co., Philadelphia, Pa.
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.

Kidd Bros. & Burgher Steel Wire Co., McKees Rocks, Pa.
 Lough-Scott Co., 26 Cortlandt St., New York.
 Mesta Machine Co., Pittsburgh, Pa.
 National Electric Co., Milwaukee, Wis.
 National Steel Foundry Co., New Haven, Ct.
 Otis Steel Co., Ltd., Cleveland, O.
 Providence Steel Casting Co., Providence, R. I.
 Seaboard Steel Casting Co., Chester, Pa.
 Geo. H. Smith Steel Casting Co., Milwaukee, Wis.
 C. E. Sutton Co., Toledo, O.
 N. & G. Taylor Co., Chestnut and Third Sts., Philadelphia, Pa.
 Taylor Iron & Steel Co., High Bridge, N. J.
 William B. Walter & Co., Marquette Bldg., Chicago, Ill.
 Wellman-Seaver-Morgan Co., Cleveland, O.
 Worcester Steel Foundry Co., Worcester, Mass.

MERCHANTS.

Denman & Davis, 85-87 John St., N. Y.
 Walter Graham, Harrison Bldg., Philadelphia, Pa.
 C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.
 Homer F. Livermore, Boston, Mass.
 John B. Newkirk & Co., 15th & Market Sts., Philadelphia, Pa.
 Phillips-Lafitte Co., Pennsylvania Bldg., Philadelphia, Pa.
 H. A. Rogers Co., 19 John St., New York.
 Charles G. Shepard, Buffalo, N. Y.

Castings, Steel Elevator—

American Steel Foundries, Fisher Bldg., Chicago, Ill.
 Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

Castings, Steel, Thermit Process—

Goldschmidt Thermit Co., 43 Exchange Pl., New York.

Castings, Stove—

Schreiber & Conchar Mfg. Co., Dubuque, Ia.

Castings, Tunnel—

Mesta Machine Co., Pittsburgh, Pa.
 Pleuger & Henger Mfg. Co., St. Louis, Mo.

Castings, Water Works—

Buffalo Foundry Co., Buffalo, N. Y.
 Builders Iron Foundry, Providence, R. I.
 Hooven, Owens, Rentschler Co., Hamilton, O.
 Humphrey Machine Co., Keene, N. H.
 Charles Millar & Son Co., Utica, N. Y.
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.
 Poole Engineering & Machine Co., Baltimore, Md.
 Taylor-Wilson Mfg. Co., McKees Rocks, Pa.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Castings, White Metal—

Bancroft & Co., Drexel Bldg., Philadelphia, Pa.
 Cleveland Galvanizing Works, Cleveland, P. J. Donovan Brass Foundry Co., Bridgeport, Ct.
 H. H. Franklin Mfg. Co., Syracuse, N. Y.
 Andrew B. Hendryx Co., New Haven, Ct.

Ohio Brass Co., Mansfield, O.
 Pleuger & Henger Mfg. Co., St. Louis, Mo.
 Paul S. Reeves & Son, Philadelphia, Pa.
 Riverside Metal Co., Riverside, N. J.
 E. W. Vanduzen Co., Cincinnati, O.
 Veeder Mfg. Co., Hartford, Ct.

Castings, Wrought Iron—

National Tube Co., Pittsburgh, Pa.

Castings, Zinc—

E. W. Vanduzen Co., Cincinnati, O.

Catalogue Cases, Cabinets—

(See Cases, Cabinets, Catalogue.)

Catalogues and Circulars—

Francis I. Maule, 402 Sansom St., Philadelphia, Pa.

Catch Basin Covers—

(See Covers, Catch Basin.)

Catchers, Grass—

Enterprise Mfg. Co., Philadelphia, Pa.
 Ney Mfg. Co., Canton, O.
 Philadelphia Lawn Mower Co., 3100-3109 Chestnut St., Philadelphia, Pa.
 Specialty Mfg. Co., St. Anthony Park, Minn.

Catchers, Hardware Co., Philadelphia, Pa.

Whitman & Barnes Mfg. Co., Chicago.

Catchers, Mail—

Taylor & Boggis Foundry Co., Cleveland, O.

Catches and Fasteners, Refrigerator—

Arcade Mfg. Co., Freeport, Ill.

Catches, Barn Door—

Lawrence Bros., Sterling, Ill.

A. C. Williams, Ravenna, O.

Catches, Basement Window—

Caldwell Mfg. Co., Rochester, N. Y.

Catches, Cupboard—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Shelby Spring Hinge Co., Shelby, O.

Taylor & Boggis Foundry Co., Cleveland, O.

W. & J. Tiebout, 118 Chambers St., N. Y.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

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Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Catches, Transom—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Catches, Trunk—

J. H. Sessions & Son, Bristol, Ct.

Catches, Window—

Galdwell Mfg. Co., Rochester, N. Y.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

W. & J. Tiebout, 118 Chambers St., N. Y.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Cattle Leaders, &c.—

(See Leaders, Prods. &c.)

Cattle Ties—

(See Ties, Cattle.)

Ceiling and Siding, Iron and Steel—

American Steel & Tin Plate Co., Pittsburgh, Pa.

Berger Mfg. Co., Canton, O.

Edwards Mfg. Co., Cincinnati, O.

Follansbee Bros. Co., Pittsburgh, Pa.

Garry Iron & Steel Co., Cleveland, O.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.

McCullough Iron Co., Wilmington, Del.

New York Metal Ceiling Co., 537 W. 24th St., New York.

Reeves Mfg. Co., Canal Dover, O.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Scott & Co., Cincinnati, O.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.

McClellan & Orr, Monadnock Block, Chicago, Ill.

Merchant & Evans Co., Philadelphia, Pa.

Pierson & Co., 29 Broadway, New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and

Wayman Sts., Chicago, Ill.

Ceiling Hooks—

(See Hooks, Chandelier or Lamp.)

Ceiling Pulleys—

(See Pulleys, Ceiling.)

Cement—

Lawrence Cement Co., 1 Broadway, N. Y.

Cement, Asbestos—

H. W. Johns-Manville Co., 100 William St., New York.

Cement, Belting—

Casc Mfg. Co., Columbus, O.

Cement Brick and Block Machines—

Monarch Grubber Co., Lone Tree, Ia.

Cement Drills—

(See Drills, Brick and Cement.)

Cement, Fire—

Presbrey Fire Brick Works, Taunton, Mass.

Cement for Disc Wheels—

Gardner Machine Co., Beloit, Wis.

Cement for Iron and Steel Castings—

Clark Cast Steel Cement Co., Shelton, Ct.

Cement for Steam Joints—

Clark Cast Steel Cement Co., Shelton, Ct.

Cement, Iron—

S. Obermayer Co., Cincinnati, O.

Smooth-On Mfg. Co., Jersey City, N. J.

Cement Machinery—

C. O. Bartlett & Snow Co., Cleveland, O.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Curtin-Ruggles Co., 39 Cortlandt St., N. Y.

Fairbanks Co., 416 Broome St., New York.

Chas. Mundt & Sons, 441-447 Pearl St., New York.

Robins Conveying Belt Co., Park Row Bldg., New York.

Wickes Bros., Saginaw, Mich.

Cement Plants, Slag—

Curtin-Ruggles Co., 39 Cortlandt St., N. Y.

Cement, Roofing—

Garry Iron & Steel Co., Cleveland, O.

National Roofing Co., Tonawanda, N. Y.

Scott & Co., Cincinnati, O.

Stowell Mfg. Co., Jersey City, N. J.

Cement, Silica, Magnesium and Chrome—

Harbison-Walker Refractories Co., Pittsburgh, Pa.

Cement, Stove—

Jos. Dixon Crucible Co., Jersey City, N. J.

Center Drills, Gauges, Indicators, Testers—

(See Drills, Gauges, Indicators, Testers.)

Center Grinders, Lathes—

(See Grinders, Lathe Center.)

Centering Chucks—

(See Chucks, Centering.)

Centering Machines—

Espen-Lucas Machine Works, Broad and

Noble Sts., Philadelphia, Pa.

Hendey Machine Co., Torrington, Ct.

National Machine Co., Hartford, Ct.

Nazel Engineering & Machine Works, Ridge Ave. & 11th St., Philadelphia.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

D. E. Whiton Machine Co., New London, Ct.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.

Marshall & Hinchart Machinery Co., 62

S. Canal St., Chicago, Ill.

McDowell, Stocker & Co., 59 S. Canal

St., Chicago, Ill.

Motch & Merryweather Machinery Co.,

Cleveland, O.

Vandyck-Churchill Co., 8 Dey St., N. Y.

Centers, Indexing—

Becker-Brainard Milling Machine Co.,

Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Cincinnati Milling Machine Co., Cincinnati, O.

Mark Flather Planer Co., Nashua, N. H.

Garvin Machine Co., Spring & Varick Sts.,

New York.

Gould & Eberhardt, Newark, N. J.

Hendey Machine Co., Torrington, Ct.

Pratt & Whitney Co., Hartford, Ct.

Stockbridge Machine Co., Worcester,

Mass.

Centers, Planer—

Hendey Machine Co., Torrington, Ct.

Niles-Bement-Pond Co., 111 Broadway,

New York.

Pratt & Whitney Co., Hartford, Ct.
 F. E. Reed & Co., Worcester, Mass.

Centers, Sash and Transom—
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Susquehanna Casting Co., Wrightsville, Pa.

Wrightsville Hdw. Co., Wrightsville, Pa.

Centers, Sash and Transom—
 Hendey Machine Co., Torrington, Ct.

Centrifugals for Sugar and Chemicals—

J. B. & J. M. Cornell, 239 11th Ave., New York.

Cesspools—
 Goulds Mfg. Co., Seneca Falls, N. Y.

John C. Kupperle, St. Louis, Mo.
 Pleuger & Henger Mfg. Co., St. Louis, Mo.

Rock River Mfg. Co., Dixon, Ill.

Chafing Dishes—
 (See Dishes, Chafing.)

Chain, Aluminum—
 Bridgeport Chain Co., Bridgeport, Ct.

Chain Bars, Bicycle—
 (See Bicycle Chain Bars.)

Chain Belting, Hoists, &c.—
 (See Belting, Hoists, &c.)

Chain, Bicycle—
 Boston Gear Works, Boston, Mass.

Harford Machine Screw Co., Hartford, Ct.

Kidd Bros. & Burgher Steel Wire Co., McKees Rocks, Pa.

Chain, Block—
 Diamond Chain & Mfg. Co., Indianapolis, Ind.

Seneca Chain Co., Kent, O.

Chain, Brake—
 (See Chain, Railroad.)

Chain, Bronze, Brass, Iron and Steel—

Bridgeport Chain Co., Bridgeport, Ct.

Andrew B. Hendryx Co., New Haven, Ct.

Chain, Cable, Flat Link—
 Diamond Chain & Mfg. Co., Indianapolis, Ind.

Chain, Coil—
 Bradlee & Co., Beach St. & E. Susquehanna Ave., Philadelphia, Pa.

Bridgeport Chain Co., Bridgeport, Ct.

Kentucky Chain Co., Frankfort, Ky.

Lebanon Chain Works, Lebanon, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Oneida Community, Ltd., Kenwood, N. Y.

Seneca Chain Co., Kent, O.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

MERCHANTS.
 Hermann Boker & Co., 101-103 Duane St., New York.

Broderick & Bascom Rope Co., St. Louis, A. Leschen & Sons Rope Co., St. Louis.

McClellan & Orr, Monadnock Block, Chicago, Ill.

Chain, Conveyor—
 H. W. Caldwell & Son Co., Western Ave. 17th and 18th Sts., Chicago, Ill.

Diamond Chain & Mfg. Co., Indianapolis, Ind.

Interstate Engineering Co., Bedford, O.

Lebanon Chain Works, Lebanon, Pa.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chain, Crane, Cable, &c.—
 C. O. Bartlett & Snow Co., Cleveland, O.

Bradlee & Co., Beach St. & E. Susquehanna Ave., Philadelphia, Pa.

Alfred Field & Co., 93 Chambers St., New York.

C. W. Hunt Co., West New Brighton, N. Y.

Interstate Engineering Co., Bedford, O.

Jones & Laughlin Steel Co., Pittsburgh, Pa.

Lebanon Chain Works, Lebanon, Pa.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

D. Round & Son, Cleveland, O.

Seneca Chain Co., Kent, O.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

MERCHANTS.
 Broderick & Bascom Rope Co., St. Louis.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Cass Mfg. Co., Columbus, O.

Arthur C. Harvey Co., Boston, Mass.

A. Leschen & Sons Rope Co., St. Louis.

Wickes Bros., Saginaw, Mich.

Chain Dogs—
 (See Dogs, Ring & Chain.)

Chain, Driving—
 H. W. Caldwell & Son Co., Western Ave. & 17th St., Chicago, Ill.

Diamond Chain & Mfg. Co., Indianapolis, Ind.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Chain, Galvanized—
 Cleveland Galvanizing Works, Cleveland.

Lebanon Chain Works, Lebanon, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chain, Hobbie—
 Kentucky Chain Co., Frankfort, Ky.

Chain, Hoisting—
 (See Chain, Crane, Cable, &c.)

Chain, Jack, Safety, &c.—
 Ames Sword Co., Chicopee, Mass.

Bridgeport Brass Co., 253 Broadway, New York.

Bridgeport Chain Co., Bridgeport, Ct.

A. B. Hendryx & Co., New Haven, Ct.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

McNab & Harlin Mfg. Co., 56 John St., New York.

Oneida Community, Ltd., Kenwood, N. Y.

Parker Wire Goods Co., Worcester, Mass.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Scrivell Mfg. Co., Waterbury, Ct.

Turner & Seymour Mfg. Co., Torrington, Ct.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Chain, Ladder—

(See Chain, Jack, Safety, &c.)

Chain Links and Chain—C. O. Bartlett & Snow Co., Cleveland, O.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Bridgeport Chain Co., Bridgeport, Ct.

Buhl Malleable Co., Detroit, Mich.

Dodge Mfg. Co., Mishawaka, Ind.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Interstate Engineering Co., Bedford, O.

Jeffrey Mfg. Co., Columbus, O.

Keystone Drop Forge Works, Chester, Pa.

Kidd Bros. & Burgher Steel Wire Co., McKees Rocks, Pa.

Kilborn & Bishop Co., New Haven, Ct.

Lebanon Chain Co., Lebanon, Pa.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Rhode Island Tool Co., Providence, R. I.

M. Seward & Son Co., New Haven, Ct.

Standard Chain Co., Pittsburgh, Pa.

Taylor Iron & Steel Co., High Bridge,

N. J.

W. & S. Mfg. Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Chain Links, Cutters for**Sawing Bicycle—**

(See Bicycle Chain Links, Cutters for Sawing.)

Chain, Lumber Boom—

Lebanon Chain Works, Lebanon, Pa.

New Castle Forge & Bolt Co., New Castle,

Pa.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chain Machinery—

Bridgeport Chain Co., Bridgeport, Ct.

Diamond Chain & Mfg. Co., Indianapolis, Ind.

Seneca Chain Co., Kent, O.

Standard Chain Co., Pittsburgh, Pa.

Turner, Vanglin & Taylor Co., Chyahoga

Falls, O.

Chain Machinery, Bicycle—

Adriance Machine Works, Brooklyn, N. Y.

E. W. Bliss Co., Brooklyn, N. Y.

Garvin Machine Co., Spring and Varick

Sts., New York.

Pratt & Whitney Co., Hartford, Ct.

Waterbury Farnel Foundry & Machine

Co., Waterbury, Ct.

Chain, Marine Railway—

Lebanon Chain Co., Lebanon, Pa.

Seneca Chain Co., Kent, O.

Chain, Plumbers—

(See Chain, Jack, Safety, &c.)

Chain, Pocket Wheel—

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chain Pot Cleaners—

(See Kitchen Articles, Wire.)

Chain, Pump—

Bridgeport Chain Co., Bridgeport, Ct.

Cleveland Galvanizing Works, Cleveland.

Garland Nut & Rivet Co., Pittsburgh, Pa.

Oneida Community, Ltd., Kenwood, N. Y.

Chain Pump Fixtures—

(See Pump Fixtures, Chain.)

Chain Pump Tubing—

(See Tubing, Chain Pump.)

Chain, Railroad, Brake,**Switch, &c.—**

Kentucky Chain Co., Frankfort, Ky.

Lebanon Chain Works, Lebanon, Pa.

New Castle Forge & Bolt Co., New Castle,

Pa.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chain, Sash—

U. T. Hungerford Brass & Copper Co.,

497-505 Pearl St., New York.

Chain, Sprocket—

Diamond Chain & Mfg. Co., Indianapolis,

Ind.

Andrew B. Hendryx Co., New Haven, Ct.

Lebanon Chain Works, Lebanon, Pa.

D. Round & Son, Cleveland, O.

Seneca Chain Co., Kent, O.

Standard Chain Co., Pittsburgh, Pa.

Chain, Steam Shovel and**Dredge—**

Lebanon Chain Works, Lebanon, Pa.

D. Round & Son, Cleveland, O.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chain, Stud Link—

Bradlee & Co., Beach St. & E. Susque-

hanna Ave., Philadelphia, Pa.

M. Lanz & Sons, Pittsburgh, Pa.

Lebanon Chain Works, Lebanon, Pa.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Seneca Chain Co., Kent, O.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chain, Switch—

(See Chain, Railroad.)

Chain, Ventilator—

U. T. Hungerford Brass & Copper Co.,

497-505 Pearl St., New York.

Chains, Agricultural—

Bridgeport Chain Co., Bridgeport, Ct.

Lebanon Chain Works, Lebanon, Pa.

New Castle Forge & Bolt Co., New Castle,

Pa.

Oneida Community, Ltd., Kenwood, N. Y.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chains and Locks, Bag-**gage—**

Ames Sword Co., Chicopee, Mass.

Chains, Binding—

Kentucky Chain Co., Frankfort, Ky.

Seneca Chain Co., Kent, O.

Standard Chain Co., Pittsburgh, Pa.

Chains, Bird Cage—

Andrew B. Hendryx Co., New Haven, Ct.

Parker Wire Goods Co., Worcester, Mass.

Chains, Breast—

(See Chains, Wagon and Fancy.)

Chains, Bushed—

Bethlehem Foundry & Machine Co., South

Bethlehem, Pa.

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Engineering Co., Nicetown,

Philadelphia, Pa.

Chains, Cart—

Bridgeport Chain Co., Bridgeport, Ct.

Covert Mfg. Co., Troy, N. Y.

Lebanon Chain Co., Lebanon, Pa.

Oneida Community, Ltd., Kenwood, N. Y.

Seneca Chain Co., Kent, O.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chains, Dog and Halter—

Bridgeport Chain Co., Bridgeport, Ct.

Covert Mfg. Co., Troy, N. Y.

Alfred Field & Co., 93 Chambers St., New York.

Lebanon Chain Co., Lebanon, Pa.
Oneida Community, Ltd., Kenwood, N. Y.

Seneca Chain Co., Kent, O.

Standard Chain Co., Pittsburgh, Pa.

Wire Goods Co., Worcester, Mass.

Woodhouse Chain Works, Trenton, N. J.

Chains, Flat Link—

Bridgeport Chain Co., Bridgeport, Ct.

Diamond Chain & Mfg. Co., Indianapolis, Ind.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Thomas Morton, 169 Elm St., New York.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Oneida Community, Ltd., Kenwood, N. Y.

Smith & Egge Mfg. Co., Bridgeport, Ct.

Chains, Flower Basket—

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Chains, Halter—

(See Chains, Dog and Halter.)

Chains, Harness—

Bridgeport Chain Co., Bridgeport, Ct.

Covert Mfg. Co., Troy, N. Y.

Andrew B. Hendryx Co., New Haven, Ct.

Kentucky Chain Co., Frankfort, Ky.

Lebanon Chain Co., Lebanon, Pa.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chains, Heel—

Bridgeport Chain Co., Bridgeport, Ct.

Covert Mfg. Co., Troy, N. Y.

Kentucky Chain Co., Frankfort, Ky.

Oneida Community, Ltd., Kenwood, N. Y.

Seneca Chain Co., Kent, O.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chains, Hobbie—

Seneca Chain Co., Kent, O.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chains, Hog—

M. Lanz & Sons, Pittsburgh, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.

Chains, Hydrant—

Bridgeport Chain Co., Bridgeport, Ct.

Oneida Community, Ltd., Kenwood, N. Y.

Chains, Ice Elevator—

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Chains, Key—

Rhode Island Tool Co., Providence, R. I.

American Ring Co., Waterbury, Ct.

Ames Sword Co., Chicopee, Mass.

Bridgeport Chain Co., Bridgeport, Ct.

Oneida Community, Ltd., Kenwood, N. Y.

Smith & Egge Mfg. Co., Bridgeport, Ct.

Chains, Log, Detachable—

Buhl Malleable Co., Detroit, Mich.

Interstate Engineering Co., Bedford, O.

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Seneca Chain Co., Kent, O.

Chains, Log, Lifting, &c.—

Bradlee & Co., Beach St. & E. Susquehanna Ave., Philadelphia, Pa.

Kentucky Chain Co., Frankfort, Ky.

Lebanon Chain Co., Lebanon, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chains, Measuring—

Keuffel & Esser Co., 127 Fulton St., New York.

Chains, Mine Slope—

Lebanon Chain Co., Lebanon, Pa.

Chains, Ox—

(See Chains, Log.)

Chains, Picket, Staking Out—

Bridgeport Chain Co., Bridgeport, Ct.

Oneida Community, Ltd., Kenwood, N. Y.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chains, Picture—

Bridgeport Chain Co., Bridgeport, Ct.

Andrew B. Hendryx Co., New Haven, Ct.

Oneida Community, Ltd., Kenwood, N. Y.

Chains, Post—

Bridgeport Chain Co., Bridgeport, Ct.

Covert Mfg. Co., Troy, N. Y.

Oneida Community, Ltd., Kenwood, N. Y.

Chains, Rein—

Covert Mfg. Co., Troy, N. Y.

Chains, Sash and Attachments—

Bridgeport Chain Co., Bridgeport, Ct.

Thomas Morton, 169 Elm St., New York.

Oneida Community, Ltd., Kenwood, N. Y.

Pullman Mfg. Co., Rochester, N. Y.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Smith & Egge Mfg. Co., Bridgeport, Ct.

Wire Goods Co., Worcester, Mass.

Chains, Ship—

Lebanon Chain Works, Lebanon, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chains, Sling—

Bradlee & Co., Beach St. & E. Susquehanna Ave., Philadelphia, Pa.

Lebanon Chain Works, Lebanon, Pa.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chains, Stake—

(See Chains, Wagon and Fancy.)

Chains, Staking Out—

(See Chains, Picket.)

Chains, Stall—

Covert Mfg. Co., Troy, N. Y.

Chains, Station—

Covert Mfg. Co., Troy, N. Y.

Chains, Trace—

Bridgeport Chain Co., Bridgeport, Ct.

Covert Mfg. Co., Troy, N. Y.

Kentucky Chain Co., Frankfort, Ky.

Lebanon Chain Works, Lebanon, Pa.

Oneida Community, Ltd., Kenwood, N. Y.

Seneca Chain Co., Kent, O.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chains, Transom—

Bridgeport Chain Co., Bridgeport, Ct.

Thomas Morton, 169 Elm St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Chains, Wagon and Fancy—

Bridgeport Chain Co., Bridgeport, Ct.

Covert Mfg. Co., Troy, N. Y.

Kentucky Chain Co., Frankfort, Ky.

Lebanon Chain Works, Lebanon, Pa.

Oneida Community, Niagara Falls, N. Y.
 Seneca Chain Co., Kent, O.
 Standard Chain Co., Pittsburgh, Pa.
 Woodhouse Chain Works, Trenton, N. J.
Chains, Welders—
 Bridgeport Chain Co., Bridgeport, Ct.
 Oreida Community, Ltd., Kenwood, N. Y.
Chains, Well—
 Bridgeport Chain Co., Bridgeport, Ct.
 Cleveland Galvanizing Works, Cleveland
 Garland Nut & Rivet Co., Pittsburgh, Pa.
 Kentucky Chain Co., Frankfort, Ky.
 Oneida Community, Ltd., Kenwood, N. Y.
 Seneca Chain Co., Kent, O.
 Standard Chain Co., Pittsburgh, Pa.
 Union Mfg. Co., New Britain, Ct.
 Woodhouse Chain Works, Trenton, N. J.
Chair Bottom Knives—
 (See Knives, Machine.)
Chairs and Settees, Lawn—
 Belmont Iron Works, Inc., Philadelphia
 Bethlehem Foundry & Machine Co., South
 Bethlehem, Pa.
 Buffalo Wire Works Co., Buffalo, N. Y.
 Edward Darby & Sons, 233-235 Arch St.,
 Philadelphia, Pa.
 Enterprise Foundry & Fence Co., Indian-
 apolis, Ind.
 Estey Wire Works Co., 59 Fulton St.,
 New York.
 Gilbert & Bennett Mfg. Co., 277 Broad-
 way, New York.
 Howard & Morse, 45 Fulton St., N. Y.
 Kramer Bros. Foundry Co., Dayton, O.
 Ludlow-Saylor Wire Co., St. Louis, Mo.
 H. O. Nelson Iron Works, Knoxville,
 Tenn.
 Ohio Structural Iron Co., Sandusky, O.
 Stewart Iron Works Co., Cincinnati, O.
 Van Dorn Iron Works, Cleveland, O.
 R. W. Whitehurst Co., Norfolk, Va.
Chairs, Folding—
 Udell Works, Indianapolis, Ind.
Chairs, Step Ladder—
 Udell Works, Indianapolis, Ind.
Chalk Line Reels—
 (See Reels, Chalk Line.)
Chalk Lines—
 (See Lines, Chalk, Masons', &c.)
Chandeller Hooks—
 (See Hooks, Chandeller.)
Chandlery, Ship, Hardware—
 (See Ship, Chandlery Hardware.)
Channel, Shoe and Cobblers'—
 Nails—
 (See Nails, Shoe, Cobblers', Channel, &c.)
**Channeling Machines, Mine
 and Quarry—**
 Ingersoll-Rand Co., 11 Broadway, New
 York.
 F. R. Patch Mfg. Co., Rutland, Vt.
Channels—
 (See Beams and Channels.)
Chaplets—
 (See Bolts, Anchor.)
Chaplets, Foundry—
 Gem Mfg. Co., Pittsburgh, Pa.
Charcoal—
 Springfield Facing Co., Springfield, Mass.
 Standard Tin Plate Co., Canonsburg, Pa.
Charcoal, Filteins—
 S. Obermayer Co., Cincinnati, O.
 J. W. Paxson Co., 1021 N. Delaware Ave.,
 Philadelphia, Pa.
 J. D. Smith Foundry Supply Co., Cleve-
 land, O.
 Springfield Facing Co., Springfield, Mass.

Charging Machines, Fur- nace—

Alliance Machine Co., Alliance, O.
 American Furnace & Machine Co., Pitts-
 burgh, Pa.
 George A. Hogg I. & S. Foundry Co.,
 Pittsburgh, Pa.
 Wellman-Seaver-Morgan Co., Cleveland, O.
**Charging Machines, Pneu-
 matic Locomotive—**
 Norwalk Iron Works Co., So. Norwalk, Ct.
Check Punches—
 (See Punches, Check.)

Checks, Baggage, Key, &c.—

American Railway Supply Co., 24 Park
 Place, New York.
 Bridgeport Brass Co., 253 Broadway, New
 York.
 Eagle Lock Co., Terryville, Ct.
 Geo. M. Ness, 61 Fulton St., New York.
 New York Stencil Works, 100 Nassau St.,
 New York.
 Schwerdtle Stamp Co., Bridgeport, Ct.
 Scovill Mfg. Co., Waterbury, Ct.
 R. Woodman Mfg. & Supply Co., Boston.

Checks, Door—

Joe. Bardsley, 147-151 Baxter St., N. Y.
 Caldwell Mfg. Co., Rochester, N. Y.
 Pullman Mfg. Co., Rochester, N. Y.
 Russell & Erwin Mfg. Co., 43-47 Chambers
 St., New York.
 Upson Nut Co., Cleveland, O.

Checks, Door Liquid—

Joseph Bardsley, 147 Baxter St., N. Y.
 Reading Hardware Co., Reading, Pa.
 Yale & Towne Mfg. Co., 9-15 Murray St.,
 New York.

Checks, Milk, Pool, &c.—

Schwerdtle Stamp Co., Bridgeport, Ct.
Checks, Plantation—
 American Railway Supply Co., 24 Park
 Place, New York.

Checks, Stamp Co., Bridgeport, Ct.

Checks, Repair—

Louis Sacks, Newark, N. J.
Checks, Time—
 American Railway Supply Co., 24 Park
 Place, New York.
 Schwerdtle Stamp Co., Bridgeport, Ct.
 R. Woodman Mfg. & Supply Co., Boston.

Checks, Trade—

American Railway Supply Co., 24 Park
 Place, New York.
 Schwerdtle Stamp Co., Bridgeport, Ct.
 R. Woodman Mfg. & Supply Co., Boston.

Cheese Factory Scales—

(See Scales, Cheese.)

Cheese Knives, &c.—

(See Knives, &c.)

Cheese Knives, Self Gaug- ing—

(See Knives, Cheese, Self Gauging.)

Chemical Apparatus—

J. Bishop & Co., Malvern, Pa.

Eimer & Amend, 205 Third Ave., N. Y.

Chemical Supplies—

Eimer & Amend, 205 Third Ave., N. Y.
 Lalance & Grosjean Mfg. Co., 13 Cliff St.,
 New York.

Chemicals and Drugs—

Eimer & Amend, 205 Third Ave., N. Y.

Chemicals, Electroplating—

Eimer & Amend, 205 Third Ave., N. Y.
 Hanson & Van Winkle Co., Newark, N. J.
 Zucker & Levett & Loeb Co., 529-530 West
 25th St., New York.

Chemists, Consulting and Analytical—

Henry Souther Engineering Co., Hartford, Ct.

Cherry Seeders and Stoners—
(See Stoners.)

Chest Handles, Hinges—
(See Handles, Hinges.)

Chests, Tool—

American Tool Chest Co., 200 West Houston St., New York.

Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

E. B. Estes & Sons, 45-47 John St., N. Y. C. E. Jennings & Co., 42 Murray St., New York.

Millers Falls Co., 28 Warren St., N. Y. Vanderman Plumbing & Heating Co., Willimantic, Ct.

Children's Trays—

(See Trays, Silver Plated.)

Chimes, Church and Band—

Beyn Bros. Mfg. Co., East Hampton, Ct.

Chimney Caps—

(See Ventilators and Chimney Caps.)

Chimney Cleaners, Lamp—

(See Cleaners, Lamp Chimney.)

Chimney Tops—

(See Tops, Chimney, Revolving.)

Chimneys, Iron and Steel—

American Bridge Co. of New York, 42 Broadway, New York.

Barry & Zecher Co., Lancaster, Pa. Thomas Carlin's Sons, Allegheny, Pa.

W. J. Clark Co., Salem, O. East Jersey Pipe Co., Paterson, N. J.

Franklin Boiler Works Co., Troy, N. Y. S. Freeman & Sons Mfg. Co., Racine, Wis.

Hendrick Mfg. Co., Carbondale, Pa. E. Keeler Co., Williamsport, Pa.

Meehan Boiler & Construction Co., Lowellville, Pa.

R. S. Newbold & Son Co., Norristown, Pa.

Pennsylvania Engineering Works, New Castle, Pa.

Pittsburgh Industrial Iron Works, Pittsburgh, Pa.

Ritter-Conley Mfg. Co., Pittsburgh, Pa. Wm. B. Scrafe & Sons Co., Pittsburgh, Pa.

Stirling Consolidated Boiler Co., 111 Broadway, New York.

Struthers, Wells & Co., Warren, Pa. Tudor Boiler Mfg. Co., Cincinnati, O.

Wicks Bros., Saginaw, Mich.

MERCHANTS.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Chippers, Ice—

Dana Mfg. Co., Cincinnati, O. North Bros. Mfg. Co., Philadelphia, Pa.

Wagner Mfg. Co., Cedar Falls, Ia.

Chisel Gauges, Grinders, Handles—

(See Gauges, Grinders, Handles.)

Chisels and Gouges, Socket—

Charles Buck Edge Tool Co., Millbury, Mass.

Buck Bros., Millbury, Mass. C. E. Jennings & Co., 42 Murray St., New York.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Tower & Lyon Co., 95 Chambers St., New York.

L. & I. J. White Co., Buffalo, N. Y.

Chisels and Gouges, Tanged—

Chas. Buck Edge Tool Co., Millbury, Mass.

Buck Bros., Millbury, Mass. Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

L. & I. J. White Co., Buffalo, N. Y.

Chisels, Box—

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Kilborn & Bishop Co., New Haven, Ct. Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Vaughan & Bushnell Mfg. Co., Chicago

Chisels, Brick—

Kilborn & Bishop Co., New Haven, Ct. Marshalltown Trowel Co., Marshalltown, Ia.

H. Mueller Mfg. Co., Decatur, Ill. Solid Steel Tool & Forge Co., Tarentum, Pa.

Vaughan & Bushnell Mfg. Co., Chicago

Chisels, Calking—

Kilborn & Bishop Co., New Haven, Ct. H. Mueller Mfg. Co., Decatur, Ill.

Chisels, Cape—

Hubbard & Co., Pittsburgh, Pa. Kilborn & Bishop Co., New Haven, Ct.

H. Mueller Mfg. Co., Decatur, Ill. National Cutlery Co., Detroit, Mich.

Vaughan & Bushnell Mfg. Co., Chicago.

Chisels, Chipping—

Hubbard & Co., Pittsburgh, Pa.

Chisels, Cold—

Billings & Spencer Co., Hartford, Ct. Charles Buck Edge Tool Co., Millbury, Mass.

Buck Bros., Millbury, Mass. Cronk & Carrier Mfg. Co., Elmira, N. Y.

Hubbard & Co., Pittsburgh, Pa. Kilborn & Bishop Co., New Haven, Ct.

H. Mueller Mfg. Co., Decatur, Ill. National Cutlery Co., Detroit, Mich.

Ney Mfg. Co., Canton, O. Peck, Stow & Wilcox Co., 27 Murray St., New York.

Snell Mfg. Co., Fishdale, Mass. Transue & Williams Co., Alliance, O.

Tack Mfg. Co., Brockton, Mass. Vaughan & Bushnell Mfg. Co., Chicago.

Wadman & Barnes Mfg. Co., Chicago.

Chisels, Cutters and Drills, Granite—

Ingersoll-Rand Co., 11 Broadway, New York.

Trow & Holden, Barre, Vt.

Chisels, Diamond Point—

Hubbard & Co., Pittsburgh, Pa. Kilborn & Bishop Co., New Haven, Ct.

H. Mueller Mfg. Co., Decatur, Ill. Vaughan & Bushnell Mfg. Co., Chicago.

Chisels, Flogging—

Hubbard & Co., Pittsburgh, Pa.

Chisels, Floor and Ripping—
Chas. Buck Edge Tool Co., Millbury,
Mass.

H. Mueller Mfg. Co., Decatur, Ill.
National Cutlery Co., Detroit, Mich.

Chisels, Hot and Cold—

Heller Bros. Co., Newark, N. J.
Vaughan & Bushnell Mfg. Co., Chicago.

Chisels, Ice—

(Also see Picks and Awls, Ice.)

American Fork & Hoe Co., Cleveland, O.

Landers, Frary & Clark, New Britain, Ct.

Potter Mfg. Co., Geneva, O.

Smith & Hemenway Co., 108-110 Duane
St., New York.

Wagner Mfg. Co., Cedar Falls, Ia.

A. C. Williams, Ravenna, O.

Chisels, Ice—

(See Ice Harvesting Tools.)

Chisels, Mortising, Hollow

and Solid—

Forest City Bit & Tool Co., Rockford,
Ill.

Greenlee Bros. & Co., Rockford, Ill.

Job T. Pugh, 31st and Ludlow Sts., Phila-
delphia, Pa.

Chisels, Round Nose—

Hubbard & Co., Pittsburgh, Pa.

Chisels, Toy—

(See Toy Chisels.)

Chisels, Wire—

Niagara Machine & Tool Works, Buffalo,
N. Y.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Vaughan & Bushnell Mfg. Co., Chicago

Chocolate Pots—

(See Pots, Silver Plated.)

Choppers—

(See Cutters, Meat, Food and Vegetable.)

Christmas Tree Holders—

(See Holders, Christmas Tree.)

Chrome-Nickel—

Geo. G. Blackwell Sons Co., Liverpool,
Eng.

Chromium—

Goldschmidt Thermit Co., 43 Exchange
Place, New York.

C. W. Leavitt & Co., 220 Broadway, New
York.

Roessler & Hasslacher Chemical Co., 108
William St., New York.

Chuckers and Turning Ma-

chines, Automatic—

Hartford Machine Screw Co., Hartford, Ct.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Potter & Johnson Machine Co., Paw-
tucket, R. I.

Pratt & Whitney Co., Hartford, Ct.

Chucking Machines—

Brown & Sharpe Mfg. Co., Providence,
R. I.

Garvin Machine Co., Spring and Varick
Sts., New York.

Hartford Machine Screw Co., Hartford, Ct.

Jones & Lamson Machine Co., Spring-
field, Vt.

Potter & Johnston Machine Co., Paw-
tucket, R. I.

Pratt & Whitney Co., Hartford, Ct.

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Brown & Sharpe Mfg. Co., Providence,
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Garvin Machine Co., Spring and Varick
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Hartford Machine Screw Co., Hartford, Ct.

Jones & Lamson Machine Co., Spring-
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Potter & Johnston Machine Co., Paw-
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Hartford Machine Screw Co., Hartford, Ct.

Jones & Lamson Machine Co., Spring-
field, Vt.

Potter & Johnston Machine Co., Paw-
tucket, R. I.

Pratt & Whitney Co., Hartford, Ct.

Motch & Merryweather Machinery Co.,
Cleveland, O.

Thornton Machinery Co., Providence,
R. I.

C. C. Wormer Machinery Co., Detroit,
Mich.

Chucks—

T. R. Almond Mfg. Co., Brooklyn, N. Y.

Cushman Chuck Co., Hartford, Ct.

Garvin Machine Co., Spring and Varick
Sts., New York.

E. Harrington, Son & Co., Philadelphia.

E. Horton & Son Co., Windsor Locks, Ct.

Jacobs Mfg. Co., Hartford, Ct.

Morse Twist Drill & Machine Co., New
Bedford, Mass.

Mutual Mfg. Co., Bridgeport, Ct.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Oneida National Chuck Co., Oneida, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Pinkerton Mfg. Co., 2631 N. 34th St.,
Philadelphia, Pa.

Pratt Chuck Co., Frankfort, N. Y.

Pratt & Whitney Co., Hartford, Ct.

D. Saunders' Sons, Yonkers, N. Y.

Skinner Chuck Co., New Britain, Ct.

Standard Tool Co., Cleveland, O.

Union Mfg. Co., New Britain, Ct.

Westcott Chuck Co., Oneida, N. Y.

D. E. Whiton Mach. Co., New London, Ct.

Chucks, Automatic Lever—

Pinkerton Mfg. Co., 2631 N. 34th St.,
Philadelphia, Pa.

Potter & Johnston Machine Co., Paw-
tucket, R. I.

Chucks, Centering—

Cushman Chuck Co., Hartford, Ct.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Skinner Chuck Co., New Britain, Ct.

Dwight Slate Machine Co., Hartford, Ct.

Union Mfg. Co., New Britain, Ct.

Westcott Chuck Co., Oneida, N. Y.

D. E. Whiton Mach. Co., New London, Ct.

Chucks, Drill—

T. R. Almond Mfg. Co., Brooklyn, N. Y.

R. H. Brown & Co., New Haven, Ct.

Cleveland Twist Drill Co., Cleveland, O.

Cushman Chuck Co., Hartford, Ct.

Goodell Mfg. Co., Greenfield, Mass.

Goodell-Pratt Co., Greenfield, Mass.

E. Horton & Son Co., Windsor Locks, Ct.

Jacobs Mfg. Co., Hartford, Ct.

C. E. Jennings & Co., 42 Murray St.,
New York.

William G. Le Count, South Norwalk, Ct.

Millers Falls Co., 28 Warren St., N. Y.

Morse Twist Drill & Machine Co., New
Bedford, Mass.

Mutual Mfg. Co., Bridgeport, Ct.

Niles-Bement-Pond Co., 111 Broadway,
New York.

North Bros. Mfg. Co., Philadelphia, Pa.

Oneida National Chuck Co., Oneida, N. Y.

Pratt & Whitney Co., Hartford, Ct.

D. Saunders' Sons, Yonkers, N. Y.

Schuchardt & Schutte, 136 Liberty St.,
New York.

Skinner Chuck Co., New Britain, Ct.

Smith & Egge Mfg. Co., Hartford, Ct.

Smith & Hemenway Co., 108-110 Duane
St., New York.

Standard Tool Co., Cleveland, O.

Union Mfg. Co., New Britain, Ct.

Westcott Chuck Co., Oneida, N. Y.

D. E. Whiton Mach. Co., New London, Ct.
Wiley & Russell Mfg. Co., Greenfield,
Mass.

**Chucks, Emery Wheel Bush-
ing—**
Norton Emery Wheel Co., Worcester,
Mass.

**Chucks for Boring and
Turning Mills—**
Fairbanks Co., 416 Broome St., New York.

E. Horton & Son Co., Windsor Locks, Ct.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Union Mfg. Co., New Britain, Ct.
Westcott Chuck Co., Oneida, N. Y.

**Chucks for Cutting Off Ma-
chines—**
E. Horton & Son Co., Windsor Locks, Ct.
Oneida National Chuck Co., Oneida, N. Y.

Westcott Chuck Co., Oneida, N. Y.
**Chucks, Independent, Uni-
versal—**

E. Horton & Son Co., Windsor Locks, Ct.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Oneida National Chuck Co., Oneida, N. Y.
Potter & Johnston Machine Co., Paw-
tucket, R. I.

Westcott Chuck Co., Oneida, N. Y.
Chucks, Lathe—

T. R. Almond Mfg. Co., Brooklyn, N. Y.
Cushman Chuck Co., Hartford, Ct.

Fairbanks Co., 416 Broome St., New York.
E. Harrington, Son & Co., Philadelphia,
Pa.

E. Horton & Son Co., Windsor Locks, Ct.
Mutual Mfg. Co., Bridgeport, Ct.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Oneida National Chuck Co., Oneida, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Pratt Chuck Co., Frankfort, N. Y.
Pratt & Whitney Co., Hartford, Ct.

Skinner Chuck Co., New Britain, Ct.
Union Mfg. Co., New Britain, Ct.
Westcott Chuck Co., Oneida, N. Y.

D. E. Whiton Mach. Co., New London, Ct.
Chucks, Milling Machine—
Brown & Sharpe Mfg. Co., Providence,
R. I.

E. Horton & Son Co., Windsor Locks, Ct.
Marshall & Huchart Machinery Co., 62
S. Canal St., Chicago, Ill.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Oneida National Chuck Co., Oneida, N. Y.
Skinner Chuck Co., New Britain, Ct.

Union Mfg. Co., New Britain, Ct.
Westcott Chuck Co., Oneida, N. Y.

Chucks, Planer—
American Tool Works Co., Cincinnati, O.

Box Machine Co., Grand Rapids, Mich.
E. Harrington, Son & Co., Philadelphia,
Hollands Mfg. Co., Erie, Pa.

New Haven Mfg. Co., New Haven, Ct.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Oneida National Chuck Co., Oneida, N. Y.
Pratt & Whitney Co., Hartford, Ct.

Quincy, Manchester, Sargent Co., Old
Colony Bldg., Chicago, Ill.
Francis Reed Co., Worcester, Mass.

Skinner Chuck Co., New Britain, Ct.
Tower & Lyon Co., 95 Chambers St.,
New York.

Union Mfg. Co., New Britain, Ct.

Chucks, Revolving—
Pinkerton Mfg. Co., 2631 N. 34th St.,
Philadelphia, Pa.

Chucks, Spinning—
Adriance Machine Works, Brooklyn, N. Y.

E. W. Bliss Co., Brooklyn, N. Y.
Chucks, Spring Safety—
Mutual Mfg. Co., Bridgeport, Ct.

Chucks, Tapping—
E. Horton & Son Co., Windsor Locks, Ct.

Mutual Mfg. Co., Bridgeport, Ct.
Oneida National Chuck Co., Oneida, N. Y.

Westcott Chuck Co., Oneida, N. Y.
Chucks, Wire—
Massachusetts Tool Co., Greenfield, Mass.

Pratt & Whitney Co., Hartford, Ct.
Church Chimes—
(See Chimes, Church and Band.)

**Churn Machinery and
Tools—**
Peter Gerlach Co., Cleveland, O.

Churns—
Richmond Cedar Works, Richmond, Va.

Sturges & Burn Mfg. Co., Chicago, Ill.
Chute Linings—
Taylor Iron & Steel Co., High Bridge,
N. J.

Chutes, Coal—
Hendrick Mfg. Co., Carbondale, Pa.

C. W. Hunt Co., West New Brighton,
N. Y.

Interstate Engineering Co., Bedford, O.
Mathew Lanz & Sons, Pittsburgh, Pa.

Link-Belt Engineering Co., Nicetown,
Philadelphia, Pa.

McCullough Iron Co., Wilmington, Del.
Pennsylvania Engineering Works, New
Castle, Pa.

Riter-Conley Mfg. Co., Pittsburgh, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh,

Chutes, Garbage—
Hill Dryer Co., Worcester, Mass.

Cider Mill Teeth—
(See Teeth, Cider Mill.)

Cider Mills—
(See Mills, Cider.)

Cinder Mills—
J. Wesley Pullman, 238 S. 3d St., Phila-
delphia, Pa.

MERCHANTS.
Filling & Crane, Girard Bldg., Phila-
delphia, Pa.

Circular Saw Bench—
(See Bench, Circular Saw.)

Circular Saws—
(See Saws, Circular.)

Cistern Pumps—
(See Pumps, Cistern.)

Clam Hooks—
(See Hooks, Clam.)

Clamp Dogs, Drills—
(See Dogs, Drills.)

Clamps and Slides, Rope—
Broderick & Bascom Rope Co., St. Louis.

E. B. Estes & Sons, 45-47 John St., N. Y.
A. Leschen & Sons Rope Co., St. Louis.

Clamps, Belt—
Binings & Spencer Co., Hartford, Ct.

Case Mfg. Co., Columbus, O.

Dodge Mfg. Co., Mishawaka, Ind.

Goodell-Pratt Co., Greenfield, Mass.

Clamps, Boat Builders—
Walter W. Woodruff & Sons Co., Mt.
Carmel, Ct.

Clamps, Boiler—

Wm. G. Le Count, So. Norwalk, Ct.
James L. Taylor Mfg. Co., Bloomfield,
N. J.

Clamps, Box and Case—

R. C. Jenkinson & Co., Newark, N. J.

Clamps, Cable Conduit—

New Jersey Foundry & Machine Co., 9-13
Murray St., New York.

**Clamps, Cabinet, Carpen-
ters', Machinists', Wood-
workers', &c.—**

Arcade Mfg. Co., Freeport, Ill.
Athol Machine Co., Athol, Mass.
Chas. H. Besly & Co., 15-21 Clinton St.,
Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.
Columbia Grey Iron Co., Columbia, Pa.
Fanner Mfg. Co., Cleveland, O.
Hammer & Co., Branford, Ct.
Wm. G. Le Count, South Norwalk, Ct.
Oliver Machinery Co., Grand Rapids,
Mich.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Reading Hardware Co., Reading, Pa.

Root Bros. Co., Plymouth, O.

Sandusky Tool Co., Sandusky, O.
Smith & Hemenway Co., 108-110 Duane
St., New York.

L. S. Starrett Co., Athol, Mass.
Stow Flexible Shaft Co., 26th & Callow-
hill Sts., Philadelphia, Pa.

A. C. Williams, Ravenna, O.
Walter W. Woodruff & Sons Co., Mt.
Carmel, Ct.

Wrightsville Hardware Co., Wrightsville,
Pa.

Clamps, Boiler—

A. L. Henderer's Sons, Wilmington, Del.

Clamps, Carriage—

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Reading Hardware Co., Reading, Pa.

James L. Taylor Mfg. Co., Bloomfield,
N. J.

Walter W. Woodruff & Sons Co., Mt.
Carmel, Ct.

Clamps, Column—

James L. Taylor Mfg. Co., Bloomfield,
N. J.

Clamps, Electrical Cable—

Diamond Expansion Bolt Co., 9-15 Mur-
ray St., New York.

Clamps, Encircling—

Walter W. Woodruff & Sons Co., Mt.
Carmel, Ct.

Clamps, Flanging—

Hilles & Jones Co., Wilmington, Del.
Scully Steel & Iron Co., Halsted and
Wayman Sts., Chicago, Ill.

Clamps, Girder—

Geo. V. Cresson Co., 18th St. & Alle-
gheny Ave., Philadelphia, Pa.

Clamps, Guard Rail—

American Valve & Meter Co., Cincin-
nati, O.

Clamps, Guy—

M. Lanz & Sons, Pittsburgh, Pa.
New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

Clamps, Harness—

Root Bros. Co., Plymouth, O.

Clamps, Hay Rack—

F. E. Myers & Bro., Ashland, O.
Rock River Mfg. Co., Dixon, Ill.

Clamps, Hose—

(See Hose Attachments.)

Clamps, Iron, Malleable—

J. D. Smith Foundry Supply Co., Cleve-
land, O.

Clamps, Key Seat—

L. S. Starrett Co., Athol, Mass.

Clamps, Lineman's—

John H. Graham & Co., 113 Chambers
St., New York.

Smith & Hemenway Co., 108-110 Duane
St., New York.

Clamps, Parallel—

Athol Machine Co., Athol, Mass.
Chas. H. Besly & Co., 15-21 Clinton St.,
Chicago, Ill.

Clamps, Plow, Nutted—

Upson Nut Co., Cleveland, O.

Clamps, Pole—

(See Telegraph and Telephone Pole Sup-
plies.)

Clamps, Rule—

Massachusetts Tool Co., Greenfield, Mass.
L. S. Starrett Co., Athol, Mass.

Clamps, Saw—

Henry Diston & Sons, Philadelphia, Pa.
Wm. G. Le Count, So. Norwalk, Ct.

Oliver Machinery Co., Grand Rapids,
Mich.

Reading Hardware Co., Reading, Pa.
James L. Taylor Mfg. Co., Bloomfield,
N. J.

Tower & Lyon Co., 95 Chambers St.,
New York.

Clamps, Splicing—

Cronk & Carrier Mfg. Co., Elmira, N. Y.
John H. Graham & Co., 113 Chambers
St., New York.

Otis A. Smith, Rockfall, Ct.
Smith & Hemenway Co., 108-110 Duane
St., New York.

Clamps, Steel—

Buy State Tool Co., Worcester, Mass.
A. L. Henderer's Sons, Wilmington, Del.

W. G. Le Count, South Norwalk, Ct.
Massachusetts Tool Co., Greenfield, Mass.

S. Obermayer Co., Cincinnati, O.
L. S. Starrett Co., Athol, Mass.

Clamps, Swivel—

Athol Machine Co., Athol, Mass.

Clamps, Toolmakers'—

Athol Machine Co., Athol, Mass.
Brown & Sharpe Mfg. Co., Providence,
R. I.

L. S. Starrett Co., Athol, Mass.

**Clamps, Trunk, Case and
Box—**

R. C. Jenkinson & Co., Newark, N. J.
John R. Keim Mills, Buffalo, N. Y.

J. H. Sessions & Son, Bristol, Ct.

Clamps, Vise—

Prentiss Vise Co., 44 Barclay St., N. Y.

Clamps, Wardrobe—

St. Louis Hardware Mfg. Co., St. Louis.

Clamps, Wire—

Otis A. Smith, Rockfall, Ct.
Smith & Hemenway Co., 108-110 Duane
St., New York.

Clamps, Wire Rope—

Broderick & Ransom Rope Co., St. Louis.
Brown-Walton Co., Cleveland, O.

M. Lanz & Sons, Pittsburgh, Pa.
A. Lescheu & Sons Rope Co., St. Louis.

Trenton Iron Co., Trenton, N. J.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Clamps, Wooden—
E. B. Estes & Sons, 45-47 John St., N. Y.
Clapboard Gauges, Markers—
(See Markers, Clapboard.)

Clasps, Hoop and Nail—
Cary Mfg. Co., 19-21 Roosevelt St., N. Y.
E. H. Titchener & Co., Binghamton, N. Y.

Clasps, Pencil—
Stanley Rule & Level Co., New Britain, Ct.

Claw Bars—
Walter A. Zelnicker Supply Co., St. Louis.

Claws, Nail—
Vaughan & Bushnell Mfg. Co., Chicago.

Claws, Tack—
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Keystone Drop Forge Works, Chester, Pa.
H. H. Mayhew Co., Shelbyville Falls, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Potter Mfg. Co., Geneva, O.

Smith & Hemenway Co., 108-110 Duane St., New York.

Whitman & Barnes Mfg. Co., Chicago.

J. H. Williams & Co., Brooklyn, N. Y.

Wrightsville Hardware Co., Wrightsville, Pa.

Clay, Fire—
Cyrus Borgner, 23d St. above Race, Philadelphia, Pa.

E. M. Haedrich, Mariner and Merchant Bldg., Philadelphia, Pa.

Harbison-Walker Refractories Co., Pittsburgh, Pa.

Hayes Run Fire Brick Co., Orvis, Pa.

Laclede Fire Brick Mfg. Co., St. Louis.

Henry Maurer & Son, 420 E. 23d St., N. Y.

S. Obermayer Co., Cincinnati, O.

Ostrander Fire Brick Co., Troy, N. Y.

J. W. Paxson Co., Philadelphia, Pa.

Portsmouth Harbison-Walker Co., Portsmouth, O.

Fresbrey Fire Brick Works, Taunton, Mass.

J. D. Smith Foundry Supply Co., Cleveland, O.

M. D. Valentine & Bro. Co., Woodbridge, N. J.

Clay Shovels—
(See Shovels, Brick.)

Clay Working Machinery—
Chambers Bros. & Co., 52d St. below Lancaster Ave., Philadelphia, Pa.

Standard Car & Foundry Co., Pittsburgh.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

United Engineering & Foundry Co., Pittsburgh, Pa.

Cleaners, Boiler—
(See Cleaners, Flue.)

Cleaners, Comb—
Geo. E. Gay, Augusta, Me.

Cleaners, Drain—
American Fork & Hoe Co., Cleveland, O.

Iwan Bros., Streator, Ill.

Cleaners, File—
Nicholson File Co., Providence, R. I.

Cleaners, Flue—
Fanner Mfg. Co., Cleveland, O.

Gem Mfg. Co., Pittsburgh, Pa.

S. M. Howes Co., Boston, Mass.

Jarecki Mfg. Co., Erie, Pa.

E. Keeler Co., Williamsport, Pa.

Maurer, Labadie & Co., South Bend, Ind.

Millers Falls Co., 28 Warren St., N. Y.

Ohio Nut & Bolt Co., Berea, O.

Osborn Mfg. Co., Cleveland, O.

J. W. Paxson Co., Philadelphia, Pa.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Wire Goods Co., Worcester, Mass.

Walter A. Zelnicker Supply Co., St. Louis.

Cleaners, Lamp Chimney—
Lowell Scale Co., Lowell, Mass.

Cleaners, Lawn—
Supplee Hardware Co., Philadelphia, Pa.

Cleaners, Plate, Pan and Kettle—
C. W. Lasher Mfg. Co., Davenport, Ia.

Cleaners, Sewer—
Osborn Mfg. Co., Cleveland, O.

Cleaners, Shot Gun—
Reversible Tube Cleaner Co., Worcester, Mass.

J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

Cleaners, Sidewalk—
American Fork & Hoe Co., Cleveland, O.

Avery Stamping Co., Cleveland, O.

Continental Tool Co., Frankfort, N. Y.

Cleaners, Sink—
C. W. Lasher Mfg. Co., Davenport, Ia.

New York Stamping Co., Brooklyn, N. Y.

Osborn Mfg. Co., Cleveland, O.

Pritchard-Strong Co., Rochester, N. Y.

Wire Goods Co., Worcester, Mass.

Cleaners, Window—
Handy Things Co., Ludington, Mich.

Parker Wire Goods Co., Worcester, Mass.

F. H. Smith Mfg. Co., 18-30 W. Randolph St., Chicago, Ill.

Cleaners, Tube—
Reversible Tube Cleaner Co., Worcester, Mass.

Cleaver Springs—
(See Springs, Cleaver.)

Cleats, Brass and Galvanized—
A. S. Morss Co., Boston, Mass.

W. & J. Tiebout, 118 Chambers St., N. Y.

Cleats, Line and Rope—
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Parker Wire Goods Co., Worcester, Mass.

Reading Hardware Co., Reading, Pa.

W. Whitehurst Co., Norfolk, Va.

A. C. Williams, Ravenna, O.

Wire Goods Co., Worcester, Mass.

Cleaver Handles—
(See Handles, Grass Hook, &c.)

Cleavers, Butcher, Family, &c.—
Geo. H. Bishop & Co., Cincinnati, O.

John Chatillon & Sons, 85-93 Cliff St., New York.

Chas. Forschner & Sons, 206 E. 19th St., New York.

Griffin Mfg. Co., Erie, Pa.

Clevises, Malleable—
W. & J. Tiebout, 118 Chambers St., N. Y.

Climbers, Lineman's—
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Kilborn & Bishop Co., New Haven, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.

Clinch Rings, Rivets—
(See Rings, Rivets.)

Clippers and Shear, Combined—
Roberts Mfg. Co., Somerville, Mass.

Clippers, Bolt and Rivet—
Chambers Bros. & Co., 52d St., below Lancaster Ave., Philadelphia, Pa.
Helwig Mfg. Co., St. Paul, Minn.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

H. K. Porter, Everett, Mass.
Roberts Mfg. Co., Somerville, Mass.
Wm. Schollhorn Co., New Haven, Ct.

Clippers, Finger Nail—
H. C. Cook & Co., Ansonia, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.

Clippers, Horse and Toilet—
American Shearer Mfg. Co., Nashua, N. H.

Hermann Boker & Co., 101-103 Duane St., New York.
Brown & Sharpe Mfg. Co., Providence, R. I.

Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.
John H. Graham & Co., 113 Chambers St., New York.

Edward S. Hotchkiss, Bridgeport, Ct.
Wiebusch & Hilger, 157 Chambers St., New York.

Clippers, Power, Horse—
American Shearer Mfg. Co., Nashua, N. H.
Chicago Flexible Shaft Co., 124-126 La Salle Ave., Chicago, Ill.

Clippers, Stay Bolt—
(See Cutters, Stay Bolt.)

Clipping Blade Grinders, Horse—
(See Grinders, Horse Clipping Blade.)

Clips, Axle, Spring Bar, &c.—
E. D. Clapp Mfg. Co., Auburn, N. Y.
Richard Eccles Co., Auburn, N. Y.
Franklin Moore Co., Winsted, Ct.
Scranton Forging Co., Scranton, Pa.
M. Seward & Son Co., New Haven, Ct.
Epson Nut Co., Cleveland, O.

Clips, Carriage Trimmers, &c.—
United States Clothes Pin Co., Montpelier, Vt.

Clips, Connecting, Upholstering Springs—
Cleveland Wire Spring Co., Cleveland, O.

Clips, Damper—
Berger Brothers Co., 231-237 Arch St., Philadelphia, Pa.

Brohard Co., Hutchinson St. and Columbia Ave., Philadelphia, Pa.
S. M. Howes Co., Boston, Mass.

Kramer Bros. Foundry Co., Davton, O.
Republic Metalware Co., Buffalo, N. Y.
Schreiber & Conchar Mfg. Co., Dubuque, Ia.

Taylor & Boggis Foundry Co., Cleveland, O.

Clips, Paper—
(See Stationers' Hardware.)

Clips, Photographers'—
United States Clothes Pin Co., Montpelier, Vt.

Clips, Test Tube—
E. B. Estes & Sons, 45-47 John St., N. Y.

Clips, Toe—
Bevin Bros. Mfg. Co., E. Hampton, Ct.
Smith & Egge Mfg. Co., Bridgeport, Ct.
Wire Goods Co., Worcester, Mass.

Clips, Trolley Wire—
(See Trolley Materials, Electric.)

Clips, Wire Rope—
Broderick & Baacom Rope Co., St. Louis, Cincinnati
Railway Supply Co., Cincinnati, O.

Mathew Lanz & Sons, Pittsburgh, Pa.
A. Leschen & Sons Rope Co., St. Louis.
Trenton Iron Co., Trenton, N. J.
Williamsport Wire Rope Co., Williamsport, Pa.
Wright Wire Co., Worcester, Mass.

Clock Machinery—
Blake & Johnson, Waterbury, Ct.
Stark Tool Co., Waltham, Mass.

Clock Springs—
(See Springs.)

Clocks—
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Goodwin & Kintz Co., Winsted, Ct.
C. Nanz & Co., 127 Duane St., New York.
Riggs & Bro., 310 Market St., Philadelphia, Pa.

Clocks, Electric—
Riggs & Bro., 310 Market St., Philadelphia, Pa.

Clocks, House, Office, &c.—
Riggs & Bro., 310 Market St., Philadelphia, Pa.

Clocks, Locomotive and Engine Room—
American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Crosby Steam Gauge & Valve Co., Boston, Mass.
Riggs & Bro., 310 Market St., Philadelphia, Pa.

Clocks, Marine—
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Ashton Valve Co., Boston, Mass.
Riggs & Bro., 310 Market St., Philadelphia, Pa.

Clocks, Non-Magnetic—
Riggs & Bro., 310 Market St., Philadelphia, Pa.

Clocks, Programme—
Riggs & Bro., 310 Market St., Philadelphia, Pa.

Clocks, Watchman's—
C. Nanz & Co., 127 Duane St., N. Y.
Newman Clock Co., Masonic Bldg., Chicago, Ill.

W. R. Ostrander & Co., 22 Day St., N. Y.
Eiggs & Bro., 310 Market St., Philadelphia, Pa.
Simplex Time Recorder Co., Gardner, Mass.

Closets, Clothes—
(See Lockers, Office and Shop.)

Closets, Steel, Material—
Merritt & Co., 1024-1026 Ridge Ave., Philadelphia, Pa.

Cloth, Bolting—

Case Mfg. Co., Columbus, O.
Lacey Wire Works Co., 59 Fulton St.,
New York.

Michigan Wire Cloth Co., Detroit, Mich.

Cloth, Brattice—

A. Fred Field & Co., 93 Chambers St.,
New York.

Cloth, Carborundum—

Carborundum Co., Niagara Falls, N. Y.

Cloth Dryers—

(See Dryers, Cloth and Cotton.)

Baeder, Adamson & Co., 730 Market St.,
Philadelphia, Pa.
Carborundum Co., Niagara Falls, N. Y.

Cloth, Fruit Drying, Galvanized—

Michigan Wire Cloth Co., Detroit, Mich.

Cloth, Piano—

L. E. Palmer, Middletown, Ct.

Cloth, Tracing—

Keuffel & Esser Co., 127 Fulton St., N. Y.

Cloth, Window Screen

Buffalo Wire Works Co., Buffalo, N. Y.
Clinton Wire Cloth Co., Clinton, Mass.
Gilbert & Bennett Mfg. Co., 277 Broad-
way, New York.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Michigan Wire Cloth Co., Detroit, Mich.

New Freedom Wire Cloth Co., New Free-
dom, Pa.

New Jersey Wire Cloth Co., Trenton, N. J.

L. E. Palmer, Middletown, Ct.

Wickwire Bros., Cortland, N. Y.

Cloth, Wire—

(See also Cloth, Window Screen.)

Buffalo Wire Works Co., Buffalo, N. Y.

Clinton Wire Cloth Co., Clinton, Mass.

Edward Darby & Sons, 233-235 Arch St.,
Philadelphia, Pa.

Estey Wire Works Co., 59 Fulton St.,
New York.

Gilbert & Bennett Mfg. Co., 277 Broad-
way, New York.

Howard & Morse, 45 Fulton St., N. Y.

Irving Mfg. & Tool Co., 157 Chambers
St., New York.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Michigan Wire Cloth Co., Detroit, Mich.

New Freedom Wire Cloth Co., New
Freedom, Pa.

New Jersey Wire Cloth Co., Trenton, N. J.

Phosphor Bronze Smelting Co., 2300 Wash-
ington Ave., Philadelphia, Pa.

W. S. Tyler Co., Cleveland, O.

Wickwire Bros., Cortland, N. Y.

Wright Wire Co., Worcester, Mass.

Clothes Bars—

(See Racks, Clothes.)

Clothes Brushes—

(See Brushes, Silver Plated.)

Clothes Dryers, Hangers,

&c.—

(See Dryers, Hangers, &c.)

Clothes Line Holders,

Hooks, &c.—

(See Holders, Hooks, &c.)

Clothes Pin Machinery—

Humphrey Machine Co., Keene, N. H.

Clothes Pins—

(See Pins, Clothes.)

Clubs, Indian—

F. B. Estes & Sons, 45-47 John St., N. Y.

John Sommer's Sons, Newark, N. J.

Clutch Couplings, Pulley—

(See Couplings, Pulley.)

Clutches for Bottoming

Tap—

Helwig Mfg. Co., St. Paul, Minn.

Clutches, Friction—

Adriance Machine Works, Brooklyn, N. Y.

American Tool & Machine Co., Boston,

E. W. Bliss Co., Brooklyn, N. Y.

Boston Gear Works, Boston, Mass.

Brown Hoisting Machinery Co., Cleveland.

Browning Engineering Co., Cleveland, O.

H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Geo. V. Cresson Co., 18th St. & Alle-
gheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Eastern Machinery Co., New Haven, Ct.

Falls Rivet & Machine Co., Cuyahoga
Falls, O.

Carlyle Johnson Machine Co., Hartford,

Conn.

Jones & Laughlin Steel Co., Pittsburgh,

Link-Belt Engineering Co., Nicetown,

Philadelphia, Pa.

New Haven Mfg. Co., New Haven, Ct.

Patterson, Gottfried & Hunter, Ltd., 146-
150 Centre St., New York.

Poole Engineering & Machine Co., Balti-
more, Md.

Pratt & Whitney Co., Hartford, Ct.

Wellman-Seaver-Morgan Co., Cleveland, O.

T. B. Wood's Sons Co., Chambersburg,
Pa.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.

Stiles-Morse Co., Western Union Bldg.,
Chicago, Ill.

C. C. Wormer Machinery Co., Detroit,
Mich.

Clutches, Jaw—

H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Dodge Mfg. Co., Mishawaka, Ind.

Eastern Machinery Co., New Haven, Ct.

Falls Rivet & Machine Co., Cuyahoga
Falls, O.

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Engineering Co., Nicetown,
Philadelphia, Pa.

Poole Engineering & Machine Co., Bal-
timore, Md.

T. B. Wood's Sons Co., Chambersburg,
Pa.

Clutches, Wood Split Pul-

ley—

Case Mfg. Co., Columbus, O.

Dodge Mfg. Co., Mishawaka, Ind.

Fairbanks Co., 416 Broome St., New York.

Coach Mountings, Screws—

(See Mountings, Screws.)

Coal—

Ressemer Coke Co., Pittsburgh, Pa.

Columbus Iron & Steel Works, Colum-
bus, O.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.

La Belle Iron Works Co., Steuben-
ville, O.

Pilling & Crane, Girard Bldg., Philadel-
phia, Pa.

Washington Coal & Coke Co., Dawson,
Pa.

MERCHANTS.

Role, Ross & Co., Pittsburgh, Pa.
 Justice Cox, Jr. & Co., Ltd., Land Title Bldg., Philadelphia, Pa.
 J. K. Dimmick & Co., New Land Title Bldg., Philadelphia, Pa.
 Walter Graham, Harrison Bldg., Philadelphia, Pa.
 J. H. Hillman & Son, Pittsburgh, Pa.
 C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.
 Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.
 J. J. Mohr, Bullitt Bldg., Philadelphia, Pa.
 Potts & Wittman, North American Bldg., Philadelphia, Pa.
 J. Wesley Pullman, 238 S. 3d St., Philadelphia, Pa.
 Charles G. Shepard, Buffalo, N. Y.

Coal and Ash Handling Stations for Locomotives—
 Browning Engineering Co., Cleveland, O.
 C. W. Hunt Co., West New Brighton, N. Y.

Coal Cars, Hods, Scales, &c.—
 (See Cars, Hods, Scales, &c.)

Coal Compressing Machinery—
 (See Compressing Machinery, Coal.)

Coal Cutters—
 Ingersoll-Rand Co., 11 Broadway, New York.
 Jeffrey Mfg. Co., Columbus, O.

Coal Handling Machinery—
 C. O. Bartlett & Son, Co., Cleveland, O.
 Broderick & Bascom Rope Co., St. Louis.
 Brown Hoisting Machinery Co., Cleveland.
 Browning Engineering Co., Cleveland, O.
 Buhl Malleable Co., Detroit, Mich.
 H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
 Thos. Carlin's Sons, Allegheny, Pa.
 C. W. Hunt Co., West New Brighton, N. Y.

Interstate Engineering Co., Bedford, O.
 Jeffrey Mfg. Co., Columbus, O.
 A. Leschen & Sons Rope Co., St. Louis.
 Lidgetwood Mfg. Co., 96 Liberty St., New York.
 Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
 Robins Conveying Belt Co., Park Row Bldg., New York.
 Wellman-Seaver-Morgan Co., Cleveland, O.

MERCHANTS.

Wicks Bros., Saginaw, Mich.
Coal Handling Machinery, Electric—
 Brown Hoisting Machinery Co., Cleveland.
 General Electric Co., Schenectady, N. Y.
 C. W. Hunt Co., West New Brighton, N. Y.

Interstate Engineering Co., Bedford, O.
 Wellman-Seaver-Morgan Co., Cleveland, O.
 Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Coal Handling Pockets—
 (See Pockets, Coal Handling.)

Coal Holes—
 (See Iron Work, Builders'.)

Coal Hoppers on Scales—
 H. Evans, Brooklyn, N. Y.

Coal Lands—

J. H. Hillman & Son, Pittsburgh, Pa.
Coal Mining Machinery—
 Broderick & Bascom Rope Co., St. Louis.
 Ingersoll-Rand Co., 11 Broadway, New York.

A. Leschen & Sons Rope Co., St. Louis.
 Wellman-Seaver-Morgan Co., Cleveland, O.

Coal Washing Machinery—
 Interstate Engineering Co., Bedford, O.

Jeffrey Mfg. Co., Columbus, O.
 Wellman-Seaver-Morgan Co., Cleveland, O.

Coaling Stations, Locomotive—

Brown Hoisting Machinery Co., Cleveland.
 Browning Engineering Co., Cleveland, O.
 C. W. Hunt Co., West New Brighton, N. Y.

Interstate Engineering Co., Bedford, O.
 Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Shelfield Car Co., Three Rivers, Mich.
 Wellman-Seaver-Morgan Co., Cleveland, O.

Coal Hangers—
 (See Hangers, Garment and Trouser.)

Coal Hooks, Racks—
 (See Hooks, Racks.)

Coating, Liquid Asphalt—
 Stowell Mfg. Co., Jersey City, N. J.

Coating, Wire Rope—
 Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

Cobblers' Outfits—
 Enterprise Mfg. Co., Philadelphia, Pa.

Root Bros. Co., Plymouth, O.
 Sacks Iron Foundry, Newark, N. J.

Wrightsville Hardware Co., Wrightsville, Pa.

Cobblers' Shoe Nails—
 (See Nails, Shoe, Cobblers', Channel, &c.)

Cock Grinders—
 (See Grinders, Cock.)

Cockeyes, Swivel—
 (See Eyes, Cock, Swivel.)

Cocks, Brass—

Ashton Valve Co., Boston, Mass.
 Fairbanks Co., 416 Broome St., New York.

John H. Graham & Co., 113 Chambers St., New York.

Humphries Mfg. Co., Mansfield, O.
 Jenkins Bros., 71 John St., New York.

Landers, Frary & Clark, New Britain, Ct.
 Lunkenheimer Co., Cincinnati, O.

McNab & Harlin Mfg. Co., 56 John St., New York.

H. Mueller Mfg. Co., Decatur, Ill.
 Nolte Brass Co., Springfield, O.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Pleuger & Henger Mfg. Co., St. Louis, Mo.
 Wm. Powell Co., Cincinnati, O.

Walworth Mfg. Co., Boston, Mass.

Cocks, Gauge—
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.

E. M. Dart Mfg. Co., Providence, R. I.
 Julian D'Este Co., Boston, Mass.

Fairbanks Co., 416 Broome St., New York.
 Jenkins Bros., 71 John St., New York.

Lunkenheimer Co., Cincinnati, O.
 McNab & Harlin Mfg. Co., 56 John St., New York.

Ohio Brass Co., Mansfield, O.
 Wm. Powell Co., Cincinnati, O.

Walworth Mfg. Co., Boston, Mass.

Cocks, Iron—
(See Faucets, Iron.)
Coffee Mills, Pot Stands—
(See Mills, Stands.)
Coffee Pots—
(See Pots, Tea and Coffee.)
Coffee Sets—
(See Sets, Silver Plated.)
Coffin Hardware—
Blake & Johnson, Waterbury, Ct.
Coil Chain—
(See Chain, Coil.)
Coilers, Chain Link—
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
Coilers, Wire—
Baird Machine Co., Oakville, Ct.
Garvin Machine Co., Spring and Varick Sts., New York.
E. J. Manville Machine Co., Waterbury, Ct.
Morgan Construction Co., Worcester, Mass.
Coiling Machines, Spring—
(See Spring Coiling Machines.)
Coils, Copper Steam—
E. B. Badger & Sons Co., Boston, Mass.
Coils, Pipe—
Green Fuel Economizer Co., Matteawan, N. Y.
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.
McNab & Harlin Mfg. Co., 56 John St., New York.
National Pipe Bending Co., New Haven, Ct.
Walworth Mfg. Co., Boston, Mass.
Whitlock Coil Pipe Co., Hartford, Ct.
Coining Machinery—
Adriance Machine Works, Brooklyn, N. Y.
E. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.
Gould & Eberhardt, Newark, N. J.
Chas. Lether & Co., Brooklyn, N. Y.
Waterbury Parcel Foundry & Machine Co., Waterbury, Ct.

Coke—
Bessemer Coke Co., Pittsburgh, Pa.
Columbus Iron & Steel Co., Columbus, O.
J. K. Dimmick & Co., 2023 New Land Title Bldg., Philadelphia, Pa.
Goff, Horner & Co., Ltd., Pittsburgh, Pa.
Hickman, Williams & Co., Chicago, Ill.
La Belle Iron Works, Steubenville, O.
Standard Tin Plate Co., Canonsburg, Pa.
Washington Coal & Coke Co., Dawson, Pa.

MERCHANTS.

Reed F. Blair & Co., Pittsburgh, Pa.
Bole, Ross & Co., Pittsburgh, Pa.
Bourne-Fuller Co., Cleveland, O.
Cabeen & Co., Real Estate Trust Bldg., Philadelphia, Pa.
Justice Cox, Jr., & Co., Ltd., Land Title Bldg., Philadelphia, Pa.
J. Brooks Fenno & Co., Boston, Mass.
Walter Graham, Harrison Bldg., Philadelphia, Pa.
J. H. Hillman & Son, Pittsburgh, Pa.
C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.
Jerome Keely & Co., 421 Chestnut St., Philadelphia, Pa.
Ernest Law & Co., 15th and Market Sts., Philadelphia, Pa.

J. J. Mohr, 131 S. 4th St., Philadelphia.
Pilling & Crane, Girard Bldg., Philadelphia, Pa.
Potts & Wittman, North American Bldg., Philadelphia, Pa.
J. Wesley Pullman, 238 S. 3d St., Philadelphia, Pa.
Rogers, Brown & Co., Cincinnati, O.
Frank Samuel, Harrison Bldg., Philadelphia, Pa.
Charles G. Shepard, Buffalo, N. Y.
W. P. Snyder & Co., Pittsburgh, Pa.

Coke, Crushed—

MERCHANTS.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.
J. H. Hillman & Son, Pittsburgh, Pa.
C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.
J. J. Mohr, Bullitt Bldg., Philadelphia, Pa.
J. Wesley Pullman, 238 S. 3d St., Philadelphia, Pa.
Charles G. Shepard, Buffalo, N. Y.

Coke Forks—

(See Forks, Coke.)

Coke Handling and Storage Machinery—

Brown Hoisting Machinery Co., Cleveland, O.
C. W. Hunt Co., West New Brighton, N. Y.
Wellman-Seaver-Morgan Co., Cleveland, O.

Cold Chisels—

(See Chisels, Cold.)

Cold Sheets—

(See Sheets, Cold.)

Collar Screws—

(See Screws, Collar.)

Collars, Pole—

Goodell-Pratt Co., Greenfield, Mass.

Collars, Shafting—

Buhl Malleable Co., Detroit, Mich.
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
Case Mfg. Co., Columbus, O.
Columbia Bridge Co., Pittsburgh, Pa.
Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.
C. H. A. Dissinger & Bro., Wrightsville, Pa.

Dodge Mfg. Co., Mishawaka, Ind.
Falls Rivet & Machine Co., Cuyahoga Falls, O.

Jones & Laughlin Steel Co., Pittsburgh.
Keystone Drop Forge Works, Chester, Pa.
Rhode Island Tool Co., Providence, R. I.
Ira B. Smith, Bristol, Ct.
W. & S. Mfg. Co., Worcester, Mass.
Wickes Bros., Saginaw, Mich.
J. H. Williams & Co., Brooklyn, N. Y.
T. B. Wood's Sons Co., Chambersburg, Pa.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.
McClernan & Orr, Monadiuck Block, Chicago, Ill.
C. C. Wormer Machinery Co., Detroit, Mich.

Collars, Stove Pipe—

S. M. Howes Co., Boston, Mass.

Collections and Commercial Agencies—

Tappan, McKillop & Co., First National Bank Bldg., Chicago, Ill.

Collectors, Dust—
 American Blower Co., Detroit, Mich.
 Buffalo Forge Co., Buffalo, N. Y.
 Case Mfg. Co., Columbus, O.
 Fairbanks Co., 416 Broome St., New York.
 Stirling Blower & Pipe Mfg. Co., Hartford, Ct.
 B. F. Sturtevant Co., Hyde Park, Mass.

Collectors, Grass—
 (See Catchers, Grass.)

Colors, Artists' Water—
 Keuffel & Esser Co., 127 Fulton St., N. Y.

Colors, Dry Paint—
 Garry Iron & Steel Co., Cleveland, O.

Colors in Japan—
 New Castle Paint & Varnish Co., New Castle, Pa.

Colors in Oil—
 New Castle Paint & Varnish Co., New Castle, Pa.

Colors, Mortar—
 Garry Iron & Steel Co., Cleveland, O.

Columns, Cast Iron Building—

American Bridge Co. of New York, 42 Broadway, New York.

Bethlehem Foundry & Machine Co., S. Bethlehem, Pa.

Canton Foundry & Machine Co., Canton, O.

Carnegie Steel Co., Pittsburgh, Pa.

Chesapeake Iron Works, Baltimore, Md.

J. B. & J. M. Cornell, 239 11th Ave., New York.

Moseley Iron Bridge & Roof Co., 39 Cortlandt St., New York.

Passaic Steel Co., Paterson, N. J.

Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.

Standard Car & Foundry Co., Pittsburgh.

Stewart Iron Works, Cincinnati, O.

Walker Foundry Co., Erie, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Columns, Veranda—
 (See Iron Work, Builders.)

Combination Locks, Pliers—
 (See Locks, Pliers.)

Combination Vises—
 (See Vises, Drill and Anvil.)

Combs, Curry—
 Advance Mfg. Co., Racine, Wis.

F. E. Kohler & Co., Canton, O.

New York Stamping Co., Brooklyn, N. Y.

Richard Mfg. Co., Bloomsburg, Pa.

Combs, Graining—
 Smith & Hemenway Co., 108-110 Duane St., New York.

Commercial Agencies—
 Tappan, McKillop & Co., First National Bank Bldg., Chicago, Ill.

Commercial Literature—
 Francis I. Maule, 402 Sanson St., Philadelphia, Pa.

Commission Merchants, Hardware—
 (See Agents, Hardware Manufacturers.)

Commodities—
 Uddell Works, Indianapolis, Ind.

Communition Sets—
 (See Sets, Communition, Silver Plated.)

Commutator Bars and Segments—
 (See Bars and Segments, Commutator.)

Commutators—
 (See Bars and Segments, Commutator.)

Compasses, Dividers, &c.—

Athol Machine Co., Athol, Mass.

Bemis & Call Hardware & Tool Co., Springfield, Mass.

Bron & Sharpe Mfg. Co., Providence, R. I.

John H. Graham & Co., 113 Chambers St., New York.

Keuffel & Esser Co., 127 Fulton St., New York.

Massachusetts Tool Co., Greenfield, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Wm. Schollhorn Co., New Haven, Ct.

Smith & Hemenway Co., 108-110 Duane St., New York.

L. S. Starrett Co., Athol, Mass.

Compasses, Marine—
 Keuffel & Esser Co., 127 Fulton St., New York.

Riggs & Bro., 310 Market St., Philadelphia, Pa.

Compound, Graphite Pipe Joint—

Jos. Dixon Crucible Co., Jersey City, N. J.

Compound, Insulating—
 Ohio Brass Co., Mansfield, O.

Compound, Motor Chain—
 Joseph Dixon Crucible Co., Jersey City, N. J.

Compounds, Boiler—
 Dearborn Drug & Chemical Works, Rialto Building, Chicago, Ill.

Exeter Machine Works, Exeter, N. H.

Maurer, Labadie & Co., South Bend, Ind.

Wm. R. Scaife & Sons Co., Pittsburgh.

E. W. Vanduzen Co., Cincinnati, O.

Compounds for Caulking Pipe Joints—

Smooth-On Mfg. Co., Jersey City, N. J.

Compounds, Iron—
 Smooth-On Mfg. Co., Jersey City, N. J.

Compressed Air Motors—
 (See Motors, Compressed Air.)

Compressed Air Tools—
 Chisholm & Moore Mfg. Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

Helwig Mfg. Co., St. Paul, Minn.

Ingersoll-Rand Co., 11 Broadway, New York.

Kilborn & Bishop Co., New Haven, Ct.

Niles-Bement-Pond Co., 111 Broadway, New York.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

MERCHANTS.
 Hill, Clarke & Co., Boston, Mass.

A. V. Kaiser & Co., 22 S. 3d St., Philadelphia, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Thornton Machinery Co., Providence, R. I.

Compressed Air Tools, Export—
 Chas. G. Eckstein, 249 Centre St., N. Y.

Compressing Machinery.
 Coal—
 Wellman-Seaver-Morgan Co., Cleveland, O.

Compressing Machinery.
 Cotton—
 Dimmick Pipe Co., Birmingham, Ala.

Compression Pumps—

(See Pumps, Compression and Vacuum.)

Compressors, Air—

American Steam Pump Co., Battle Creek, Mich.

Barnes Mfg. Co., Mansfield, O.

Blaisdell Machinery Co., Bradford, Pa.

E. W. Bliss Co., Brooklyn, N. Y.

Builders Iron Foundry, Providence, R. I.

Bury Compressor Co., Erie, Pa.

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Deming Co., Salem, O.

Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

General Electric Co., Schenectady, N. Y.

Heisler Mfg. Co., St. Marys, O.

Ingersoll-Rand Co., 11 Broadway, New York.

Laidlaw-Dunn-Gordon Co., 114 Liberty St., New York.

John H. McGowan Co., Cincinnati, O.

Mesta Machine Co., Pittsburgh, Pa.

A. Metz, 128 Mott St., New York.

National Electric Co., Milwaukee, Wis.

Niles-Bement-Pond Co., 111 Broadway, New York.

Norwalk Iron Works Co., South Norwalk, Ct.

Warren Steam Pump Co., Warren, Mass.

Wellman-Seaver-Morgan Co., Cleveland, O.

Robt. Wetherill & Co., Chester, Pa.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.

Charles Behlen, 72 Trinity Place, N. Y.

Thomas P. Conrad & Co., 119 S. 4th St., Philadelphia, Pa.

J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Barclay M. Everson, Pittsburgh, Pa.

W. C. Johnson & Sons Machinery Co., St. Louis, Mo.

A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.

Lovegrove & Co., 143 N. 3d St., Philadelphia, Pa.

McDowell & Co., Allegheny, Pa.

New York Machinery Depot, 120 Broadway, New York.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

H. A. Rogers Co., 19 John St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.

Stiles-Morse Co., Western Union Bldg., Chicago, Ill.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

William Ward Co., Pittsburgh, Pa.

Wickes Bros., Saginaw, Mich.

C. C. Wormer Machinery Co., Detroit, Mich.

Compressors, Gas—

American Steam Pump Co., Battle Creek, Mich.

Blaisdell Machinery Co., Bradford, Pa.

Bury Compressor Co., Erie, Pa.

Ingersoll-Rand Co., 11 Broadway, New York.

Norwalk Iron Works Co., South Norwalk, Ct.

Computing Machines—

(See Adding, Computing and Reckoning Machines.)

Computing Scales—

(See Scales, Computing.)

Concentrating Machinery—

Geo. V. Cresson Co., 38th St. & Allegheny Ave., Philadelphia, Pa.

Condensers, Ammonia—

Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.

Whitlock Coil Pipe Co., Hartford, Ct.

Condensers for Oil Refineries—

Strubbers, Wells & Co., Warren, Pa.

Condensers, Steam—

Alberger Condenser Co., 95 Liberty St., New York.

Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

Heisler Mfg. Co., St. Marys, O.

Benj. F. Kelley & Son, 91 Liberty St., New York.

John H. McGowan Co., Cincinnati, O.

Fred M. Prescott Steam Pump Co., Milwaukee, Wis.

Riter-Conley Mfg. Co., Pittsburgh, Pa.

Southark Foundry & Machine Co., Philadelphia, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

Warren Steam Pump Co., Warren, Mass.

Whitlock Coil Pipe Co., Hartford, Ct.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

MERCHANTS.

Chicago Edison Co., Edison Bldg., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

Conductor Elbows, Fasteners, &c.—

(See Elbows, Fasteners, &c.)

Conductor Pipe Hangers—

(See Hangers, Conductor Pipe.)

Conductors, Pipe, &c.—

American Sheet & Tin Plate Co., Pittsburgh, Pa.

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Edwards Mfg. Co., Cincinnati, O.

Garry Iron & Steel Co., Cleveland, O.

Goff, Horner & Co., Ltd., Pittsburgh.

Reeves Mfg. Co., Canal Dover, O.

Wm. B. Scaife & Sons Co., Pittsburgh.

Scott & Co., Cincinnati, O.

Waite, Ranlet & Co., Boston, Mass.

Conduits, Electric, Interior—

Sprague Electric Co., 557 W. 34th St., New York.

Cones and Cups—

(See Cups and Cones.)

Confectioners' Hatchets—

(See Hatchets, Confectioners.)

Connecting Rods, Forged Steel—

Block-Follak Co., Cincinnati, O.

Carnegie Steel Co., Pittsburgh, Pa.

M. Lanz & Sons, Pittsburgh, Pa.

Connectors, Linemen—

(See Splicers, Wire.)

Conservatories, Iron Framed—

Lord & Burnham Co., Irvington-on-Hudson, N. Y.

Controllers, Electric—

Case Mfg. Co., Columbus, O.
General Electric Co., Schenectady, N. Y.
Ridgway Dynamo & Engine Co., Ridgway, Pa.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Controllers, Electric, for Cranes—

Case Mfg. Co., Columbus, O.
General Electric Co., Schenectady, N. Y.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Converters, Bessemer—

Pennsylvania Engineering Works, New Castle, Pa.

Riter-Conley Mfg. Co., Pittsburgh, Pa.

Converters, Electric—

General Electric Co., Schenectady, N. Y.
National Electric Co., Milwaukee, Wis.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Converters, Side Blow—

N. Lilienberg, Betz Bldg., Philadelphia.

Conveying Belts—

(See Belts, Conveying.)

Conveying Machinery—

American Furnace & Machine Co., Pittsburgh, Pa.

Atlas Car & Mfg. Co., Cleveland, O.

C. O. Bartlett & Snow Co., Cleveland, O.

Broderick & Bascom Rope Co., St. Louis.

Brown Hoisting Machinery Co., Cleveland.

Browning Engineering Co., Cleveland, O.

Buhl Malleable Co., Detroit, Mich.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

W. E. Caldwell Co., Louisville, Ky.

Case Mfg. Co., Columbus, O.

W. J. Clark Co., Salem, O.

Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

C. W. Hunt Co., West New Brighton, N. Y.

Interstate Engineering Co., Bedford, O.

Jeffrey Mfg. Co., Columbus, O.

A. Leschen & Sons Rope Co., St. Louis.

Ludgerwood Mfg. Co., 96 Liberty St., N. Y.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

F. E. Myers & Bro., Ashland, O.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Northern Engineering Works, Detroit, Mich.

Robins Conveying Belt Co., 17-22 Park Row, New York.

Taylor Iron & Steel Co., High Bridge, N. J.

Trenton Iron Co., Trenton, N. J.

Van Dorn Iron Works Co., Cleveland, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

Wickes Bros., Saginaw, Mich.

MERCHANTS.

Carlin Machinery & Supply Co., Inc., Allegheny, Pa.

Fairbanks Co., 416 Broome St., New York.

Main Belting Co., 1219 Carpenter St., Philadelphia, Pa.

H. A. Rogers Co., 19 John St., New York.

C. C. Wormer Machinery Co., Detroit, Mich.

Conveying Machinery, Electric—

Brown Hoisting Machinery Co., Cleveland.

Case Mfg. Co., Columbus, O.

Interstate Engineering Co., Bedford, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

Conveyor Belts, Concentrating Rollers for—

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Interstate Engineering Co., Bedford, O.

Conveyor Pans, Troughs—

(See Fans, Troughs.)

Conveyors, Bagasse—

Stirling Consolidated Boiler Co., 111 Broadway, New York.

Conveyors, Cable Hoist—

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Trenton Iron Co., Trenton, N. J.

Conveyors, Cotton and Wool—

B. F. Sturtevant Co., Boston, Mass.

Conveyors, Light Material—

B. F. Sturtevant Co., Boston, Mass.

Conveyors, Steel Screw—

Buhl Malleable Co., Detroit, Mich.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Irwin Auger Bit Co., Wilmington, O.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Cooking Outfits, Electric—

General Electric Co., Schenectady, N. Y.

Coolers, Bread and Cake—

Wire Goods Co., Worcester, Mass.

Coolers, Cellular, for Automobiles—

Whitlock Coil Pipe Co., Hartford, Ct.

Coolers, Water—

Republic Metalware Co., Buffalo, N. Y.

Sturges & Burn Mfg. Co., Chicago, Ill.

Cooling Towers—

Alberger Condenser Co., 95 Liberty St., New York.

Southwark Foundry & Machine Co., Philadelphia, Pa.

Coring Machines, Beam and Channel—

Hilles & Jones Co., Wilmington, Del.

Long & Allstatter Co., Hamilton, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

Coping Saws—

(See Saws, Coping.)

Copper—

Theo. Hierz Metal Co., St. Louis, Mo.

Orford Copper Co., 43 Exchange Pl., N. Y.

Pittsburgh White Metal Co., Pittsburgh.

MERCHANTS.

American Metal Co., 52 Broadway, N. Y.

Bridgeport Brass Co., 253 B'way, N. Y.

Empire Metal Co., Syracuse, N. Y.

Garry Iron & Steel Co., Cleveland, O.

Arthur C. Harvey Co., Boston, Mass.

Hendricks Bros., 49 Cliff St., New York.

W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.

Merchant & Evans Co., Philadelphia, Pa.

Arthur T. Rutter & Co., 25 Broadway, New York.

J. J. Ryan & Co., 68-74 W. Monroe St., Chicago, Ill.

Waite, Ranlet & Co., Boston, Mass.

Copper Bars—
Bridgeport Brass Co., 253 B'way, N. Y.

Copper Bolt—
Bridgeport Brass Co., 253 B'way, N. Y.
Hendricks Bros., 49 Cliff St., New York.
Merchant & Evans Co., Philadelphia, Pa.
Scovill Mfg. Co., Waterbury, Ct.

Copper Bottoms, &c.—
(See Bottoms, &c.)

Copper Falls—
(See Ware, Copper.)

Copper, Perforated Sheet—
Harrington & King Perforating Co., 224
N. Union St., Chicago, Ill.
Hendrick Mfg. Co., Carbondale, Pa.
Chas. Mundt & Sons, 441 Pearl St., N. Y.

Copper, Phosphor—
Crescent Phosphorized Metal Co., Phila-
delphia, Pa.

R. F. Lang, 2-6 Old Slip, New York.
Riverside Metal Co., Riverside, N. J.

Copper, Roll and Sheet—
Bridgeport Brass Co., 253 B'way, N. Y.
Hendricks Bros., 49 Cliff St., New York.
Arthur T. Butter & Co., 256 Broadway,
New York.

Scovill Mfg. Co., Waterbury, Ct.
Hugh L. Thompson, Waterbury, Ct.
Waite, Ranlet & Co., Boston, Mass.

Copper Sheets, Platinum

Plated—Tube Works, Oak Lane
Sta., Philadelphia, Pa.

Copper Shot, Purified—
Riverside Metal Co., Riverside, N. J.

Copper Wire, Bare and
Waterproof—
(See Wires, Electrical.)

Coppering—
E. Phillips & Sons, So. Hanover, Mass.

Coppers, Soldering—
E. W. Bliss Co., Brooklyn, N. Y.

Bridgeport Brass Co., 253 B'way, N. Y.
U. T. Hungerford Brass & Copper Co.,
497-505 Pearl St., New York.

Millers Falls Co., 28 Warren St., N. Y.
Charles Mundt & Sons, 441-447 Pearl St.,
New York.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Union Hardware Co., Torrington, Ct.

Coppers, Soldering Sets—
Root Bros. Co., Plymouth, O.

Copperamiths—
E. B. Badger & Sons Co., Boston, Mass.

Harrisburg Pipe & Pipe Bending Co.,
Harrisburg, Pa.

National Pipe Bending Co., New Haven,
Ct.

Wm. B. Scaife & Sons Co., Pittsburgh.

Whitlock Coil Pipe Co., Hartford, Ct.

Copying Presses—
(See Presses, Copying.)

Cord Adjusters, Electric—
(See Electric Light Fittings.)

Cord, Bicycle Lacing—
Ossawan Mills Co., Norwich, Ct.

Cord, Electric—
Samson Cordage Works, Boston, Mass.
Silver Lake Co., Boston, Mass.

Cord Grips—
(See Grips, Cord and Line.)

Cord, Picture—
Andrew B. Hendryx Co., New Haven, Ct.

Ossawan Mills Co., Norwich, Ct.
Parker Wire Goods Co., Worcester, Mass.

Cord, Sash—
Broderick & Bascom Rope Co., St. Louis.
Estes Mills, Fall River, Mass.

John H. Graham & Co., 113 Chambers St.,
New York.

A. Leschen & Sons Rope Co., St. Louis.

Ossawan Mills Co., Norwich, Ct.

Phosphor Bronze Smelting Co., 2200 Wash-
ington Ave., Philadelphia, Pa.

Pullman Mfg. Co., Rochester, N. Y.

Samson Cordage Works, Boston, Mass.
Silver Lake Co., Boston, Mass.

Williamsport Wire Rope Co., Williams-
port, Pa.

Wright Wire Co., Worcester, Mass.

Cord, Shade and Ventila-
tator—
Ossawan Mills Co., Norwich, Ct.

Samson Cordage Works, Boston, Mass.
Silver Lake Co., Boston, Mass.

Cord, Signal—
Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

Samson Cordage Works, Boston, Mass.
Silver Lake Co., Boston, Mass.

Cord, Trolley—
Samson Cordage Works, Boston, Mass.

Silver Lake Co., Boston, Mass.

Cord, Wire, Picture—
Broderick & Bascom Rope Co., St. Louis.

Andrew B. Hendryx Co., New Haven, Ct.

A. Leschen & Sons Rope Co., St. Louis.

Ossawan Mills Co., Norwich, Ct.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Cordage—
American Mfg. Co., 63 Wall St., N. Y.

Broderick & Bascom Rope Co., St. Louis.

New York Cordage Co., 80 Wall St., New
York.

A. Leschen & Sons Rope Co., St. Louis.

Plymouth Cordage Co., North Plymouth,
Mass.

Samson Cordage Works, Boston, Mass.

Waterbury Co., 69 South St., New York.

Cords, Hammock—
(See Ropes, Hammock and Hitching.)

Core Boxes, Cast Iron—
Brown & Sharpe Mfg. Co., Providence,
R. I.

Core Chanlets—
J. W. Paxson Co., 1021 N. Delaware Ave.,
Philadelphia, Pa.

Core Machines, Foundry—
Falls Rivet & Machine Co., Cuyahoga
Falls, O.

Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Core Making Compound—
S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., 1021 N. Delaware Ave.,
Philadelphia, Pa.

Smooth-On Mfg. Co., Jersey City, N. J.

J. D. Smith Foundry Supply Co., Cleve-
land, O.

Core Oil—
(See Oil, Core.)

Corers, Apple—
Parker Wire Goods Co., Worcester, Mass.

Rollman Mfg. Co., Mt. Joy, Pa.

Corers, Button—
E. B. Estes & Sons, 45-47 John

Cord Cutters, Fr---
(See Cutters, Fr---

- Cork Insulation and Pipe Covering—**
H. W. Johns-Manville Co., 100 William St., New York.
- Cork Pipe Covering—**
(See Cork Insulation.)
- Corn Cribbs, Portable—**
(See Cribbs, Corn, Portable.)
- Corn Cutters, Dryers, Graters, &c.—**
(See Cutters, Dryers, Graters, &c.)
- Corn Knife Handles—**
(See Handles, Grass Hook, &c.)
- Corn Shellers—**
Parker Wire Goods Co., Worcester, Mass.
- Corner Irons, Plates—**
(See Irons, Plates.)
- Corners, Box—**
Cary Mfg. Co., 19-21 Roosevelt St., N. Y.
- Corners, Box and Case—**
Eagle Lock Co., Torrville, Ct.
R. C. Jenkinson & Co., Newark, N. J.
John R. Keim Mills, Buffalo, N. Y.
- Corners, Dust—**
Ashtabula Mfg. Co., Ashtabula, O.
- Corners, Trunk—**
R. C. Jenkinson & Co., Newark, N. J.
John R. Keim Mills, Buffalo, N. Y.
J. H. Sessions & Son, Bristol, Ct.
- Corners, Window Screen—**
Columbia Grey Iron Co., Columbia, Pa.
- Cornice, &c., Galvanized Iron—**
Berger Mfg. Co., Canton, O.
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
G. Droure Co., Bridgeport, Ct.
Edwards Mfg. Co., Cincinnati, O.
Garry Iron & Steel Co., Cleveland, O.
McCullough Iron Co., Wilmington, Del.
Scott & Co., Cincinnati, O.
- Cornice Machine—**
Badger State Machine Co., Janesville, Wis.
- Cornice Machine Co., Janesville, Wis.**
- George A. Ohl & Co., Newark, N. J.**
- Corrugated Arches—**
(See Arches, Curved, Corrugated.)
- Corrugated Gaskets—**
(See Gaskets, Corrugated.)
- Corrugated Iron—**
American Sheet & Tin Plate Co., Pittsburgh, Pa.
American Tube & Stamping Co., Bridgeport, Ct.
Boston Bridge Works, Boston, Mass.
Brown Hoisting Machinery Co., Cleveland, O.
Edwards Mfg. Co., Cincinnati, O.
Garry Iron & Steel Co., Cleveland, O.
Geff. Horner & Co., Ltd., Pittsburgh, Pa.
McCullough Iron Co., Wilmington, Del.
Republic Iron & Steel Co., Chicago, Ill.
Wm. B. Scaife & Sons, Pittsburgh, Pa.
Scott & Co., Cincinnati, O.
N. & G. Taylor Co., Chestnut and Third Sts., Philadelphia, Pa.
Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.
Youngstown Iron & Steel Roofing Co., Youngstown, O.
Youngstown Sheet & Tube Co., Youngstown, O.
- MERCHANTS.**
Bourne-Fuller Co., Cleveland, O.
Arthur C. Harvey Co., Boston, Mass.
- C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.
Merchant & Evans Co., Philadelphia, Pa.
Pierson & Co., 29 Broadway, New York.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
- Corrugated Nails—**
(See Nails, Corrugated.)
- Corrugating Machinery Sheet—**
(See Sheet Corrugating Machinery.)
- Corset Steel—**
(See Steel, Corset.)
- Corundum—**
American Emery Wheel Works, Providence, R. I.
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Hamilton Emery & Corundum Co., Chester, Mass.
Norton Emery Wheel Co., Worcester, Mass.
- Pike Mfg. Co., Pike, N. H.
Vitriified Wheel Co., Westfield, Mass.
- Corundum Bricks—**
American Emery Wheel Works, Providence, R. I.
- Cotter Drills—**
(See Drills, Cotter.)
- Cotter Pin Machinery—**
Blake & Johnson, Waterbury, Ct.
F. B. Shuster Co., New Haven, Ct.
- Cotter Wire—**
(See Wire, Cotter.)
- Cotters and Keys, Spring—**
Blake & Johnson, Waterbury, Ct.
M. S. Brooks & Son, Chester, Ct.
Climax Tag Co., Dayton, O.
Cobb & Drew, Plymouth, Mass.
Hindley Mfg. Co., Valley Falls, R. I.
E. Jenckes Mfg. Co., Pawtucket, R. I.
F. P. Smith & Co., Sharon Hill, Pa.
Whitman & Barnes Mfg. Co., Chicago, Ill.
- Cotton Bale Snips—**
(See Snips, Cotton Bale.)
- Cotton Dryers—**
(See Dryers, Cloth and Cotton.)
- Cotton Hooks, Hose, Rope, &c.—**
(See Hooks, Hose, Rope, &c.)
- Cotton Planters—**
(See Planters, Cotton.)
- Counter Boreers, Scales, Supports—**
(See Boreers, Scales, Supports.)
- Counters, Revolution and Ratchet—**
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Ashton Valve Co., Boston, Mass.
Crosby Steam Gauge & Valve Co., Boston, W. N. Durant Co., Milwaukee, Wis.
Harvey Hubbell, Bridgeport, Ct.
Pratt & Whitney Co., Hartford, Ct.
Veeder Mfg. Co., Hartford, Ct.
- Counters, Store—**
J. D. Warren Mfg. Co., Chicago, Ill.
- Counters, Wrapping—**
J. D. Warren Mfg. Co., Chicago, Ill.
- Countershafts—**
American Blower Co., Detroit, Mich.

Badger State Machine Co., Janesville, Wis.

Baird Machine Co., Oakville, Ct.

Brown & Sharpe Mfg. Co., Providence, R. I.

Buffalo Forge Co., Buffalo, N. Y.

Builders Iron Foundry, Providence, R. I.

Case Mfg. Co., Columbus, O.

Chicago Wheel & Mfg. Co., 39 W. Randolph St., Chicago, Ill.

Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.

Defiance Machine Works, Defiance, O.

Deming Co., Salem, O.

Diamond Machine Co., Providence, R. I.

Dodge Mfg. Co., Mishawaka, Ind.

W. & B. Douglas, Middletown, Ct.

Falls Rivet & Machine Co., Cuyahoga Falls, O.

Garvin Machine Co., Spring & Varick Sts., New York.

Gem Mfg. Co., Pittsburgh, Pa.

Goodell-Pratt Co., Greenfield, Mass.

Humphreys Mfg. Co., Mansfield, O.

Massachusetts Tool Co., Greenfield, Mass.

Mast, Foss & Co., Springfield, O.

Mossberg Wrench Co., Central Falls, R. I.

F. E. Myers & Bro., Ashland, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

Norton Emery Wheel Co., Worcester, Mass.

Patterson, Gottfried & Hunter, Ltd., 146 150 Centre St., New York.

Pratt & Whitney Co., Hartford, Ct.

Royersford Foundry & Machine Co., Royersford, Pa.

Standard Pressed Steel Co., 20th & Clearfield Sts., Philadelphia, Pa.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

B. F. Sturtevant Co., Boston, Mass.

Vandergrift Mfg. Co., Shelbyville, Ind.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Zucker & Levett & Loeb Co., 526-530 W. 25th St., New York.

MERCHANTS.

Hill, Clarke & Co., Boston, Mass.

Patterson, Gottfried & Hunter, Ltd., 146 150 Centre St., New York.

Thornton Machinery Co., Providence, R. I.

C. C. Wormer Machinery Co., Detroit, Mich.

Countershafts, Friction—

Fairbanks Co., 416 Broome St., New York.

Garvin Machine Co., Spring and Varick Sts., New York.

Countershafts, Right Angle—

T. R. Almond Mfg. Co., Brooklyn, N. Y.

Countershafts, Variable Speed—

Norton Emery Wheel Co., Worcester, Mass.

Countersink Bits—

(See Bits, Countersink.)

Countersink Radial Machines—

Detrick & Harvey Machine Co., Baltimore, Md.

Niles-Bement-Pond Co., 111 Broadway, New York.

Countersinks—

Billings & Spencer Co., Hartford, Ct.

Charles Buck Edge Tool Co., Millbury, Mass.

Buck Bros., Millbury, Mass.

Butterfield & Co., Derby Line, Vt.

Cleveland Twist Drill Co., Cleveland, O.

Forest City Bit & Tool Co., Rockford, Ill.

Irwin Auger Bit Co., Wilmington, O.

H. H. Maynew Co., Shelburne Falls, Mass.

Morse Twist Drill & Mach. Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Otis A. Smith, Rockfall, Ct.

Stanley Rule & Level Co., New Britain, Ct.

L. S. Starrett Co., Athol, Mass.

Tuck Mfg. Co., Brockton, Mass.

Wells Bros. & Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Countersunk Head Nails—

(See Nails, Countersunk Head.)

Counting Machines—

W. N. Durant Co., Milwaukee, Wis.

Grant Mfg. & Machine Co., Bridgeport, Ct.

Keuffel & Esser Co., 127 Fulton St., N. Y.

Pratt & Whitney Co., Hartford, Ct.

Veeder Mfg. Co., Hartford, Ct.

Couplers, Car—

American Steel Foundries, Fisher Bldg., Chicago, Ill.

Coupling Bolts—

(See Bolts, Special.)

Coupling Pins and Links—

(See Links and Pins, Car Coupling.)

Couplings, Bell Cord—

American Railway Supply Co., 24 Park Place, New York.

Samson Cordage Works, Boston, Mass.

Silver Lake Co., Boston, Mass.

Couplings, Belt—

Samson Cordage Works, Boston, Mass.

Couplings, Carriage Shaft and Pole—

C. C. Bradley & Son, Syracuse, N. Y.

Couplings, Compression Shaft—

Buhl Malleable Co., Detroit, Mich.

H. W. Caldwell & Son Co., Western Ave. & 17th St., Chicago, Ill.

W. E. Caldwell Co., Louisville, Ky.

Case Mfg. Co., Columbus, O.

Charter Gas Engine Co., Sterling, Ill.

Columbia Bridge Co., Pittsburgh, Pa.

Fairbanks Co., 416 Broome St., New York.

Falls Rivet & Machine Co., Cuyahoga Falls, O.

Forster Pulley Works, Cuba, N. Y.

Patterson, Gottfried & Hunter, Ltd., 146 150 Centre St., New York.

Poole Engineering & Machine Co., Baltimore, Md.

T. B. Wood's Sons Co., Chambersburg, Pa.

Couplings, Flange Shaft—

Boston Gear Works, Boston, Mass.

Buhl Malleable Co., Detroit, Mich.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

W. E. Caldwell Co., Louisville, Ky.

Case Mfg. Co., Columbus, O.

Columbia Bridge Co., Pittsburgh, Pa.

Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.

W. P. Davis Machine Co., Rochester, N. Y.
 Dodge Mfg. Co., Mishawaka, Ind.
 Fairbanks Co., 416 Broome St., New York.
 Falls River & Machine Co., Cuyahoga Falls, O.
 Hess, Snyder & Co., Massillon, O.
 Jones & Laughlin Steel Co., Pittsburgh.
 Patterson, Gottfried & Hunter, Ltd., 146 150 Centre St., New York.
 Poole Engineering & Machine Co., Baltimore, Md.
 Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
 Upson Nut Co., Cleveland, O.
 Walworth Mfg. Co., Boston, Mass.
 T. B. Wood's Sons Co., Chambersburg, Pa.

Couplings, Flexible Shaft—
 Case Mfg. Co., Columbus, O.

Couplings, Friction Clutch—
 Adriance Machine Works, Brooklyn, N. Y.
 American Tool & Machine Co., Boston.
 E. W. Bliss Co., Brooklyn, N. Y.
 Buhl Malleable Co., Detroit, Mich.
 H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
 W. E. Caldwell Co., Louisville, Ky.
 Case Mfg. Co., Columbus, O.
 Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.
 Dodge Mfg. Co., Mishawaka, Ind.
 Eastern Machinery Co., New Haven Ct.
 Falls River & Machine Co., Cuyahoga Falls, O.
 Hess, Snyder & Co., Massillon, O.
 Jones & Laughlin Steel Co., Pittsburgh.
 New Haven Mfg. Co., New Haven, Ct.
 Patterson, Gottfried & Hunter, 146 Center St., New York.
 Poole Engineering & Machine Co., Baltimore, Md.
 T. B. Wood's Sons Co., Chambersburg, Pa.

Couplings, Hose—
 (See Hose Attachments.)

Couplings, Joint—
 Boston Gear Works, Boston, Mass.
 Gould & Eberhardt, Newark, N. J.

Couplings, Mine Car—
 Standard Chain Co., Pittsburgh, Pa.

Couplings, Pipe—
 Standard Engineering Co., Ellwood City, Pa.

Couplings, Pump Rod—
 Barnes Mfg. Co., Mansfield, O.
 A. D. Cook, Lawrenceburg, Ind.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 K. F. Myers & Bro., Ashland, O.

Couplings, Quarter Turn Shaft—

T. R. Almond Mfg. Co., Brooklyn, N. Y.

Couplings, Railroad—
 Cleveland City Forge & Iron Co., Cleveland, O.

Couplings, Spiral Shaft—
 H. W. Caldwell & Son Co., Western Ave. & 17th St., Chicago, Ill.

Couplings, Universal Joint—
 H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.
 Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.
 Dodge Mfg. Co., Mishawaka, Ind.
 Fairbanks Co., 416 Broome St., New York.
 Jones & Laughlin Steel Co., Pittsburgh,

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
 T. B. Wood's Sons Co., Chambersburg, Pa.

Couplings, Wire Rope—
 Broderick & Bascom Rope Co., St. Louis.
 A. Leschen & Sons Rope Co., St. Louis.

Covers and Caps, Crucible—
 Joseph Dixon Crucible Co., Jersey City, N. J.
 McCullough-Dalzell Crucible Co., Pittsburgh, Pa.

Covers, Barrel—
 Buffalo Wire Works Co., Buffalo, N. Y.
 Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Wright Wire Co., Worcester, Mass.

Covers, Catch Basin—
 B. F. Sturtevant Co., Boston, Mass.
 Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.

Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.

Covers, Cistern—
 (See Iron Work, Builders'.)

Covers, Dish—
 (See Household Articles, Wire.)

Covers, Manhole Cistern—
 (See Iron Work, Builders'.)

Covers, Nickel Plated Nut—
 Erie Stamping & Mfg. Co., Erie, Pa.

Covers, Piano, Canvas—
 Sycamore Wagon Works, Sycamore, Ill.

Covers, Pot—
 Avery Stamping Co., Cleveland, O.
 C. W. Lasher Mfg. Co., Davenport, Ia.
 Republic Metalware Co., Buffalo, N. Y.

Covers, Trench—
 B. F. Sturtevant Co., Boston, Mass.

Cow Bells—
 (See Bells, Cow.)

Crabs—
 (See Winches.)

Crabs, Pole—
 D. Round & Son, Cleveland, O.
 Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

Crackers, Nut—
 Acme Shear Co., Bridgeport, Ct.
 American Cutlery Co., Chicago, Ill.
 Arcade Mfg. Co., Freeport, Ill.
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Caldwell Mfg. Co., Rochester, N. Y.
 Columbia Grey Iron Co., Columbia, Pa.
 International Silver Co., 9-13 Maiden Lane, New York
 Landers, Frary & Clark, New Britain, Ct.
 Peck, Stow & Wilcox Co., 27 Murray St., New York

Reading Hardware Co., Reading, Pa.
 A. C. Williams, Ravenna, O.

Cradles, Grain—
 American Fork & Hoe Co., Cleveland, O.

Crane Chain—
 (See Chain, Crane, Cable, &c.)

Crane Runways—
 (See Track, Overhead Carrying.)

Cranes, Bridge—
 (See Cranes, Gantry.)

Cranes, Charging—
 Alliance Machine Co., Alliance, O.
 Browning Engineering Co., Cleveland, O.
 Case Mfg. Co., Columbus, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pawling & Harnischfeger, Milwaukee, Wis.
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
Shaw Electric Crane Co., 85-89 Liberty St., New York.

Wellman-Seaver-Morgan Co., Cleveland, O.

Cranes, Dock—

Brown Hoisting Machinery Co., Cleveland,
Browning Engineering Co., Cleveland, O.
Industrial Works, Bay City, Mich.
Interstate Engineering Co., Bedford, O.
New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Pawling & Harnischfeger, Milwaukee, Wis.
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
Shaw Electric Crane Co., 85-89 Liberty St., New York.

Wellman-Seaver-Morgan Co., Cleveland, O.
Whiting Foundry Equipment Co., Harvey, Ill.

Cranes, Electric—

Alliance Machine Co., Alliance, O.
Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.

Brown Hoisting Machinery Co., Cleveland,
Browning Engineering Co., Cleveland, O.
Case Mfg. Co., Columbus, O.
Chisholm & Moore Mfg. Co., Cleveland, O.
Cleveland Crane & Car Co., Wickliffe, O.
Frevort Machinery Co., 18 Dey St., New York.

General Pneumatic Tool Co., Montour Falls, N. Y.

Edw. Harrington, Son & Co., 1508 Pennsylvania Ave., Philadelphia, Pa.

C. W. Hunt Co., West New Brighton, N. Y.

Interstate Engineering Co., Bedford, O.
Manning, Maxwell & Moore, 85 Liberty St., New York.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.

Pawling & Harnischfeger, Milwaukee, Wis.
Wm. Sellers & Co., Inc., Philadelphia.
Shaw Electric Crane Co., 85-89 Liberty St., New York.

Sprague Electric Co., 527 W. 34th St., New York.

Wellman-Seaver-Morgan Co., Cleveland, O.
Whiting Foundry Equipment Co., Harvey, Ill.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.

A. V. Kaiser Co., 222 S. Third St., Philadelphia, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Cranes, Electric Bridge—

Cleveland Crane & Car Co., Wickliffe, O.
Interstate Engineering Co., Bedford, O.
General Pneumatic Tool Co., Montour Falls, N. Y.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Wellman-Seaver-Morgan Co., Cleveland, O.

Cranes, Electric Revolving—

Interstate Engineering Co., Bedford, O.
Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Shaw Electric Crane Co., 85-89 Liberty St., New York.

Wellman-Seaver-Morgan Co., Cleveland.

Cranes, Floating—

Brown Hoisting Machinery Co., Cleveland,
Wellman-Seaver-Morgan Co., Cleveland.

Cranes for Riveters—

General Pneumatic Tool Co., Montour Falls, N. Y.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Pawling & Harnischfeger, Milwaukee, Wis.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Shaw Electric Crane Co., 85-89 Liberty St., New York.

MERCHANTS.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Cranes, Gantry—

Alliance Machine Co., Alliance, O.
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Boston Bridge Works, Boston, Mass.

Brown Hoisting Machinery Co., Cleveland,
Browning Engineering Co., Cleveland, O.

Case Mfg. Co., Columbus, O.
Interstate Engineering Co., Bedford, O.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Pawling & Harnischfeger, Milwaukee, Wis.
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

Shaw Electric Crane Co., 85-89 Liberty St., New York.

Wellman-Seaver-Morgan Co., Cleveland, O.
Whiting Foundry Equipment Co., Harvey, Ill.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Cranes, Hand Power—

Alliance Machine Co., Alliance, O.
Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Boston Bridge Works, Boston, Mass.

Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.

Brown Hoisting Machinery Co., Cleveland,
Browning Engineering Co., Cleveland, O.

Byram & Co., Detroit, Mich.
Case Mfg. Co., Columbus, O.

Chisholm & Moore Mfg. Co., Cleveland, O.
Cleveland Crane & Car Co., Wickliffe, O.

Franklin Portable Crane & Hoist Co., Franklin, Pa.

Frevort Machinery Co., 18 Dey St., New York.

General Pneumatic Tool Co., Montour Falls, N. Y.
 Interstate Engineering Co., Bedford, O.
 Lewis Foundry & Machine Co., Pittsburgh, Pa.
 Morgan Construction Co., Worcester, Mass.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Northern Engineering Works, Detroit, Mich.
 S. Obermayer Co., Cincinnati, O.
 Pawling & Harnischfeger, Milwaukee, Wis.
 Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
 Shaw Electric Crane Co., 85-89 Liberty St., New York.
 J. G. Speidel, Reading, Pa.
 Turner Vaughn & Taylor Co., Cuyahoga Falls, O.
 Van Dorn Iron Works Co., Cleveland, O.
 Whiting Foundry Equipment Co., Harvey, Ill.
 Yale & Towne Mfg. Co., 9-15 Murray St., New York.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.
 Wickes Bros., Saginaw, Mich.
 Vandyck-Churchill Co., 8 Dey St., New York.

Cranes, Hand Traveling—

Alliance Machine Co., Alliance, O.
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Boston Bridge Works, Boston, Mass.
 Brown Hoisting Machinery Co., Cleveland, O.
 Browning Engineering Co., Cleveland, O.
 Byram & Co., Inc., Detroit, Mich.
 Case Mfg. Co., Columbus, O.
 Chisholm & Moore Mfg. Co., Cleveland, O.
 General Pneumatic Tool Co., Montour Falls, N. Y.
 Morgan Construction Co., Worcester, Mass.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Northern Engineering Works, Detroit, Mich.
 Pawling & Harnischfeger, Milwaukee, Wis.
 Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
 Wm. Sellers & Co. (Inc.), Philadelphia.
 Shaw Electric Crane Co., 85-89 Liberty St., New York.
 J. G. Speidel, Reading, Pa.
 Whiting Foundry Equipment Co., Harvey, Ill.
 Wickes Bros., Saginaw, Mich.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.
 Hill, Clarke & Co., Boston, Mass.
 A. V. Kaiser & Co., 222 S. Third St., Philadelphia, Pa.
 Thornton Machinery Co., Providence, R. I.
 Vandyck-Churchill Co., 8 Dey St., N. Y.

Cranes, Hydraulic—

Alliance Machine Co., Alliance, O.
 Chambersburg Engineering Co., Chambersburg, Pa.
 Lewis Foundry & Machine Co., Pittsburgh, Pa.
 Morgan Construction Co., Worcester, Mass.
 Northern Engineering Works, Detroit, Mich.
 S. Obermayer Co., Cincinnati, O.
 Power Specialty Co., 111 Broadway, New York.
 United Engineering & Foundry Co., Pittsburgh, Pa.
 Wellman-Seaver-Morgan Co., Cleveland, O.
 Whiting Foundry Equipment Co., Harvey, Ill.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
 Wright Wire Co., Worcester, Mass.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.
 Joseph T. Ryerson & Sons, 13-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Cranes, Hydraulic Ingot and Ladle—

Alliance Machine Co., Alliance, O.
 Case Mfg. Co., Columbus, O.
 Chambersburg Engineering Co., Chambersburg, Pa.
 United Engineering & Foundry Co., Pittsburgh, Pa.
 Wellman-Seaver-Morgan Co., Cleveland, O.
Cranes, Hydraulic Jib—
 Alliance Machine Co., Alliance, O.
 Chambersburg Engineering Co., Chambersburg, Pa.
 Fairbanks Co., 416 Broome St., New York.
 Morgan Construction Co., Worcester, Mass.
 Whiting Foundry Equipment Co., Harvey, Ill.

Cranes, Hydro-Pneumatic—

Northern Engineering Works, Detroit, Mich.
 Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
Cranes, Ice—
 Browning Engineering Co., Cleveland, O.
 Northern Engineering Works, Detroit, Mich.

Cranes, Jib—

Alliance Machine Co., Alliance, O.
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Boston Bridge Works, Boston, Mass.
 Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.
 Brown Hoisting Machinery Co., Cleveland, O.
 Browning Engineering Co., Cleveland, O.
 Byram & Co., Inc., Detroit, Mich.
 Case Mfg. Co., Columbus, O.
 Chisholm & Moore Mfg. Co., Cleveland, O.
 Cleveland Crane & Car Co., W. c. k. l. f. e. O.
 Farrel Foundry & Machine Co., Ansonia, Ct.
 Frevert Machinery Co., 18 Dey St., New York.
 General Pneumatic Tool Co., Montour Falls, N. Y.
 Industrial Works, Bay City, Mich.
 Interstate Engineering Co., Bedford, O.

Morgan Construction Co., Worcester, Mass.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Northern Engineering Works, Detroit, Mich.
 S. Obermayer Co., Cincinnati, O.
 Pawling & Harnischfeger, Milwaukee, Wis.
 Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
 Craig Ridgway & Son Co., Coatesville, Pa.
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.
 Wm. Sellers & Co. (Inc.), Philadelphia.
 Shaw Electric Crane Co., 85-89 Liberty St., New York.
 J. G. Speidel, Reading, Pa.
 Whiting Foundry Equipment Co., Harvey, Ill.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
 Yale & Towne Mfg. Co., 9-15 Murray St., New York.

MERCHANTS.

Carlin Machinery & Supply Co., Allegheny, Pa.
 Fairbanks Co., 416 Broome St., New York.
 J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
 Wickes Bros., Saginaw, Mich.
Cranes, Ladle—
 Alliance Machine Co., Alliance, O.
 Browning Engineering Co., Cleveland, O.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Northern Engineering Works, Detroit, Mich.
 Pawling & Harnischfeger, Milwaukee, Wis.
 Wellman-Seaver-Morgan Co., Cleveland.
Cranes, Locomotive—
 Crown Hoisting Machinery Co., Cleveland.
 Browning Engineering Co., Cleveland, O.
 Case Mfg. Co., Columbus, O.
 Industrial Works, Bay City, Mich.
 Interstate Engineering Co., Bedford, O.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
 Northern Engineering Works, Detroit, Mich.
 Shaw Electric Crane Co., 85-89 Liberty St., New York.

Wellman-Seaver-Morgan Co., Cleveland.
Cranes, Locomotive Water—
 Sheffield Car Co., Three Rivers, Mich.

Cranes, Pillar—
 Browning Engineering Co., Cleveland, O.
 Industrial Works, Bay City, Mich.
 Interstate Engineering Co., Bedford, O.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Northern Engineering Works, Detroit, Mich.
 Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
Cranes, Pneumatic—
 Brown Hoisting Machinery Co., Cleveland.
 Case Mfg. Co., Columbus, O.
 Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Chisholm & Moore Mfg. Co., Cleveland, O.
 Prevett Machinery Co., 18 Dey St., New York.
 General Pneumatic Tool Co., Montour Falls, N. Y.
 Ingersoll-Rand Co., 11 Broadway, New York.
 Northern Engineering Works, Detroit, Mich.
 Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Cranes, Pneumatic Revolving—

Northern Engineering Works, Detroit, Mich.

Cranes, Portable Hand Power—

Brown Hoisting Machinery Co., Cleveland.
 Browning Engineering Co., Cleveland, O.
 Franklin Portable Crane & Hoist Co., Franklin, Pa.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
 Wm. S. Nicholls, 251 Broadway, New York.

Niles-Bement-Pond Co., 111 Broadway, New York.
 Northern Engineering Works, Detroit, Mich.

D. Round & Son, Cleveland, O.

Cranes, Railroad—

Browning Engineering Co., Cleveland, O.
 Industrial Works, Bay City, Mich.
 Interstate Engineering Co., Bedford, O.
 Northern Engineering Works, Detroit, Mich.
 Wellman-Seaver-Morgan Co., Cleveland.

Cranes, Self Supporting Jib—

General Pneumatic Tool Co., Montour Falls, N. Y.
 Northern Engineering Works, Detroit, Mich.

Cranes, Steam—

Lewis Foundry & Machine Co., Pittsburgh, Pa.
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Cranes, Steam-Hydraulic—

Craig Ridgway & Son Co., Coatesville, Pa.
 Morgan Construction Co., Worcester, Mass.

Cranes, Traveling Jib—

Alliance Machine Co., Alliance, O.
 Case Mfg. Co., Columbus, O.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Northern Engineering Works, Detroit, Mich.
 Pawling & Harnischfeger, Milwaukee, Wis.
 Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Cranes, Traveling Power—

Alliance Machine Co., Alliance, O.
 Boston Bridge Works, Boston, Mass.
 Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.

- Brown Hoisting Machinery Co., Cleveland.
 Browning Engineering Co., Cleveland, O.
 Byram & Co., Inc., Detroit, Mich.
 Thomas Carlin's Sons, Allegheny, Pa.
 Case Mfg. Co., Columbus, O.
 Chambersburg Engineering Co., Chambersburg, Pa.
 Chisholm & Moore Mfg. Co., Cleveland, O.
 Cleveland Crane & Car Co., Wickliffe, O.
 Freyer Machinery Co., 18 Dey St., New York.
 Edwin Harrington, Son & Co. (Inc.), Philadelphia, Pa.
 Lane Mfg. Co., Montpelier, Vt.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Northern Engineering Works, Detroit, Mich.
 Pawling & Harnischfeger, Milwaukee, Wis.
 Craig Ridgway & Son Co., Coatesville, Pa.
 Wm. Sellers & Co. (Inc.), Philadelphia.
 Shaw Electric Crane Co., 85-89 Liberty St., New York.
 J. D. Smith Foundry Supply Co., Cleveland, O.
 J. G. Speidel, Reading, Pa.
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
 Wellman-Sever-Morgan Co., Cleveland, O.
 Whiting Foundry Equipment Co., Harvey, Ill.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
- MERCHANTS.**
 Hill, Clarke & Co., Boston, Mass.
 Manning, Maxwell & Moore, 85 Liberty St., New York.
 S. Obermayer Co., Cincinnati, O.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Thornton Machinery Co., Providence, R. I.
 Wickes Bros., Saginaw, Mich.
- Cranes.**
 Brown Hoisting Machinery Co., Cleveland.
 Browning Engineering Co., Cleveland, O.
 Case Mfg. Co., Columbus, O.
 Industrial Works, Bay City, Mich.
 Interstate Engineering Co., Bedford, O.
 Wm. Sellers & Co. (Inc.), Philadelphia.
- Crank Boring Machines—**
 Niles-Bement-Pond Co., 111 Broadway, New York.
- Crank Handles—**
 (See Handles, Grass Hook, &c.)
- Crank Hangers, Bicycle—**
 (See Bicycle Parts.)
- Crank Key Ejectors, Bicycle—**
 (See Ejectors, Bicycle Crank Key.)
- Crank Pin Machines, Portable—**
 Niles-Bement-Pond Co., 111 Broadway, New York.
 H. B. Underwood & Co., 1025 Hamilton St., Philadelphia, Pa.
- Crank Pin Turning Machines—**
 Hill-Standard Mfg. Co., Anderson, Ind.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Pratt & Whitney Co., Hartford, Ct.
- Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
 Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
 H. B. Underwood & Co., 1025 Hamilton St., Philadelphia, Pa.
- Crank Pins, Shafts—**
 (See Pins, Shafts.)
- Crank Planing Machines—**
 Niles-Bement-Pond Co., 111 Broadway, New York.
- Crank, Bell—**
 W. R. Ostrander & Co., 22 Dey St., N. Y.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
- Crank, Gas Engine—**
 Keystone Drop Forge Works, Chester, Pa.
 Richmond Forging Corporation, Richmond, Va.
- Crate Hasps—**
 (See Hasps, Crate.)
- Crays, Metal Workers', School, &c.—**
 Jos. Dixon Crucible Co., Jersey City, N. J.
 Walter A. Zelnicker Supply Co., St. Louis.
- Crenas, Blacksmiths'—**
 Heller Bros. Co., Newark, N. J.
 Vaughan & Bushnell Mfg. Co., Chicago.
- Creeper, Ice—**
 Geo. E. Gay, Augusta, Me.
 Union Hardware Co., Torrington, Ct.
- Cresting Blocks—**
 (See Cresting, Galvanized Iron.)
- Cresting, Galvanized Iron—**
 Berger Mfg. Co., Canton, O.
 Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
 Edwards Mfg. Co., Cincinnati, O.
 W. N. Kratzer & Co., Pittsburgh, Pa.
- Crestings, Cast Iron—**
 (See Iron, Brass and Bronze, Ornamental.)
- Cribs, Corn, Portable—**
 Adams Steel & Wire Works, Joliet, Ill.
- Crimping Machines, Automatic, Wire—**
 Automatic Machine Co., Bridgeport, Ct.
- Crimping Machines, Metal—**
 Adriance Machine Works, Brooklyn, N. Y.
 Bertsch & Co., Cambridge City, Ind.
 E. W. Bliss Co., Brooklyn, N. Y.
 Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 George A. Ohl & Co., Newark, N. J.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 J. M. Robinson Mfg. Co., Cincinnati, O.
- MERCHANTS.**
 Merchant & Evans Co., 517 Arch St., Philadelphia, Pa.
 Stiles-Morse Co., Western Union Bldg., Chicago, Ill.
- Crimping Rolls—**
 (See Rolls, Crimping.)
- Crooks, Shepherd's—**
 American Fork & Hoe Co., Cleveland, O.
- Cross Arm Braces—**
 (See Telegraph and Telephone Supplies.)
- Cross Arms—**
 (See Telegraph and Telephone Pole Supplies.)
- Crosscut Saws—**
 (See Saws, Mill, Mulay, Crosscut, &c.)

Crosses, Enameled Wood—
E. B. Estes & Sons, 45-47 John St., N. Y.

Crossings, Railroad—
Allentown Rolling Mills, Allentown, Pa.
Ernst Wiener Co., 68 Broad St., New York.

Crossings, Sewer Gutter—
Enterprise Foundry & Fence Co., Indianapolis, Ind.

Crowfeet, Iron—
I. S. Spencer's Sons, Guilford, Ct.

Crowns, Bicycle—
(See Bicycle Parts.)

Crucibles and Dishes, Platinum—

Baker & Co., Inc., Newark, N. J.
J. Bishop & Co., Malvern, Pa.

Crucibles and Retorts—
Jos. Dixon Crucible Co., Jersey City, N. J.
McCullough-Dalzell Crucible Co., Pittsburgh, Pa.

R. B. Seidel, Inc., 1334 Callowhill St., Philadelphia, Pa.

MERCHANTS.

S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Crumbers, Bread—
Goodell Co., Antrim, N. H.

Crusher Plates—
Chrome Steel Works, Chrome, N. J.
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.
Taylor Iron & Steel Co., High Bridge, N. J.

Crushers, Ore and Rock—
C. O. Bartlett & Snow Co., Cleveland, O.
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Thomas Carlin's Sons Co., Allegheny, Pa.
Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.
Farrel Foundry & Machine Co., Ansonia, Ct.

Fischer Foundry & Machine Co., Pittsburgh, Pa.

George A. Hogg, I. & S. Foundry Co., Pittsburgh, Pa.

Jeffrey Mfg. Co., Columbus, O.
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Pittsburgh Industrial Iron Works, Pittsburgh, Pa.

Poole Engineering & Machine Co., Baltimore, Md.

United Engineering & Foundry Co., Pittsburgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

MERCHANTS.

Thomas P. Conard & Co., 119 S. 4th St., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.

Wickes Bros., Saginaw, Mich.

Crushers, Ore and Rock—
Parts for—

Heidrick Mfg. Co., Carbondale, Pa.
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Charles Mundt & Sons, 441-447 Pearl St., New York.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

Taylor Iron & Steel Co., High Bridge, N. J.

Cube Head Bolts—
(See Bolts, Special.)

Culinary Baskets—
(See Kitchen Articles, Wire.)

Cultivators—
American Fork & Hoe Co., Cleveland, O.
Bateman Mfg. Co., Grenloch, N. J.
Cutaway Harrow Co., Higganum, Ct.
Long & Allstatter Co., Hamilton, O.
Syracuse Chilled Plow Co., Syracuse, N. Y.
J. Thompson & Sons Mfg. Co., Beloit, Wis.

Whitman & Barnes Mfg. Co., Chicago.

Cup Holders—
(See Holders.)

Cup Hooks—
(See Hooks, Cup, Shoulder.)

Cupboard Bolts, Catches, &c.—
(See Bolts, Catches, &c.)

Cupola Linings—
(See Linings, Cupola.)

Cupolas—
Ryan & Co., Inc., Detroit, Mich.
Thomas Carlin's Sons Co., Allegheny, Pa.
J. Gilmour, Bennett Bldg., N. Y.
Meehan Boiler & Construction Co., Lowellville, O.
Northern Engineering Works, Detroit.

S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., Philadelphia, Pa.
Ritter-Conley Mfg. Co., Pittsburgh, Pa.
Wm. Sellers & Co., (Inc.), Philadelphia.
J. D. Smith Foundry Supply Co., Cleveland, O.
Whiting Foundry Equipment Co., Harvey, Ill.

Cups, Aluminum—
Beovill Mfg. Co., Waterbury, Ct.

Cups and Cones, Ball Bearing—

Crosby Co., Buffalo, N. Y.
Hartford Machine Screw Co., Hartford, Ct.

H. A. Matthews Mfg. Co., Seymour, Ct.

Cups, Cast—
E. B. Estes & Sons, 45-47 John St., N. Y.

Cups, Children's, Shaving, &c., Silver Plated—
International Silver Co., 9-13 Madison Lane, New York.

Cups, Grease—
Charles H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

H. W. Caldwell & Son Co., Western Ave. & 17th St., Chicago, Ill.

Eric Stamping & Mfg. Co., Erie, Pa.

Lunkenheimer Co., Cincinnati, O.

McNab & Harlin Mfg. Co., 50-56 John St., New York.

Wm. Powell Co., Cincinnati, O.

Robins Conveying Belt Co., 17-22 Park Row, New York.

Walworth Mfg. Co., Boston, Mass.

D. T. Williams Valve Co., Cincinnati, O.

Cups, Nail—
John C. Kupferle, St. Louis, Mo.

Cups, Oil—
Chas. H. Besly Co., 10-15 Clinton St., Chicago, Ill.

Eric Stamping & Mfg. Co., Erie, Pa.

Eynon-Evans Mfg. Co., 1517 Clearfield St., Philadelphia, Pa.

Lunkenheimer Company, Cincinnati, O.

McNab & Harlin Mfg. Co., 56 John St., New York.

Walworth Mfg. Co., Boston, Mass.

D. T. Williams Valve Co., Cincinnati, O.

Cups, Pocket—

Scovill Mfg. Co., Waterbury, Ct.

Cups, Shoemaker's Nail—

Louis Sacks, Newark, N. J.

Curbs, Pump—

William L. Barrett, Bristol, Ct.

W. & B. Douglas, Middletown, Ct.

Curled Hair—

(See Hair, Curled.)

Curling Sets—

(See Sets.)

Curry Combs—

(See Combs, Curry.)

Curtain and Upholstery Fixtures—

M. S. Brooks & Son, Chester, Ct.

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Curtain and Upholstery Hardware—

Turner & Seymour Mfg. Co., Torrington, Ct.

Curtain Pole Fixtures—

Baker-McMillen Co., Akron, O.

Turner & Seymour Mfg. Co., Torrington, Ct.

Curtain Poles—

(See Poles, Curtain.)

Curtain Rod Fixtures—

Wire Goods Co., Worcester, Mass.

Curtain Rods, Straps—

(See Rods, Straps.)

Cushions, Billiard and Pool Table—

New York Belting & Packing Co., 91-93

Chambers St., New York.

Cushions, Steel Wire—

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Cuspidors—

Bethlehem Foundry & Machine Co.,

South Bethlehem, Pa.

Bridgeport Brass Co., 253 B'way, N. Y.

Republic Metalware Co., Buffalo, N. Y.

Riverside Metal Co., Riverside, N. J.

Sturges & Burn Mfg. Co., Chicago, Ill.

Turner Brass Works, Franklin & Michi-

gan Sts., Chicago, Ill.

Cutlery Cases—

(See Cases, Cutlery.)

Cutlery, Pocket—

Hermann Boker & Co., 101-103 Duane St.,

New York.

John Catillon & Sons, 85-93 Cliff St.,

N. Y.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Alfred Field & Co., 93 Chambers St.,

New York.

Adolph Kastor & Bros., 109 Duane St.,

New York.

Northfield Knife Co., Northfield, Ct.

A. L. Silberstein, 459-461 Broadway, N. Y.

Wiebusch & Hilger, 9 Murray St., N. Y.

Cutlery, Silver Plated—

American Cutlery Co., Chicago, Ill.

Goodell Co., Antrim, N. H.

Cutlery, Table—

American Cutlery Co., Chicago, Ill.

Alfred Field & Co., 93 Chambers St.,

New York.

Goodell Co., Antrim, N. H.

Larders, Frary & Clark, New Britain, Ct.

Charles Parker Co., Meriden, Ct.

Cut-offs, Rain Water—

Berger Bros. Co., 231-237 Arch St., Phil-

adelphia, Pa.

Berger Mfg. Co., Canton, O.

Edwards Mfg. Co., Cincinnati, O.

Reeves Mfg. Co., Canal Dover, O.

Cuts, Advertising—

A. Mugford, Hartford, Ct.

Cutter and Punch, Round Belt—

Harvey Hubbell, Bridgeport, Ct.

Cutter Blanks, Milling—

W. & S. Mfg. Co., Worcester, Mass.

Cutter Blanks, Musher High Speed Milling—

Samuel Osborn & Co., Boston, Mass.

Cutter Grinding Machines—

(See Grinding Machines, Cutter and

Reamer.)

Cutters and Corers, Apple—

Rollman Mfg. Co., Mt. Joy, Pa.

Cutters and Lighters, Cigar—

Eric Specialty Co., Erie, Pa.

Cutters, Angular Form, In-

serted Tooth, Side Tap, &c.

(See Cutters, Milling.)

Cutters, Automatic Pinion—

(See Pinion Cutters, Automatic.)

Cutters, Axle—

Buffalo Forge Co., Buffalo, N. Y.

Butterfield & Co., Derby Line, Vt.

Fawcuss Machine Co., Pittsburgh, Pa.

Cutters, Bar—

Buffalo Forge Co., Buffalo, N. Y.

C. S. Mersick & Co., New Haven, Ct.

Niagara Machine & Tool Works, Buffalo,

N. Y.

George A. Ohl & Co., Newark, N. J.

Henry Pels & Co., 66 Broad St., N. Y.

Cutters, Board—

Chambers Bros. Co., 32d St. below Lan-

caster Ave., Philadelphia, Pa.

Cutters, Boiler Tube—

Fox Machine Co., Grand Rapids, Mich.

D. Saunders' Sons, Yonkers, N. Y.

Stow Flexible Shaft Co., 26th & Callow-

hill Sts., Philadelphia, Pa.

Cutters, Bolt—

Acme Machinery Co., Cleveland, O.

Badger State Machine Co., Janesville,

Wis.

Boynton & Plummer, Worcester, Mass.

H. B. Brown & Co., East Hampton, Ct.

Petrick & Harvey Mach. Co., Baltimore,

Hartford Machine Screw Co., Hartford, Ct.

Helwig Mfg. Co., St. Paul, Minn.

Howard Iron Works, Buffalo, N. Y.

National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 111 Broadway,

New York.

Peck, Stow & Wilcox Co., 27 Murray St.,

New York.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

Wm. Sellers & Co. (Inc.), Philadelphia,

Standard Engineering Co., Ellwood City,

Pa.

Standard Machinery Co., Bowling Green,

O.

Webster & Perks Tool Co., Springfield, O.

Wells Bros. Co., Greenfield, Mass.

Willey & Russell Mfg. Co., Greenfield,

Mass.

MERCHANTS.

George E. Affleck, 107 Liberty St., N. Y.
 Baird Machinery Co., Pittsburgh, Pa.
 Carlin Machinery & Supply Co., Inc.,
 Allegheny, Pa.
 J. H. Dawson Machinery Co., 39-41 S.
 Canal St., Chicago, Ill.
 Fairbanks Co., 416 Broome St., New York.
 Hill, Clarke & Co., Boston, Mass.
 Huntington Machinery & Supply Co.,
 Wilkes-Barre, Pa.
 Manning, Maxwell & Moore, 85 Liberty
 St., New York.
 Marshall & Hushart Machinery Co., 62-
 64 So. Canal St., Chicago, Ill.
 New Haven Mfg. Co., New Haven, Ct.
 Patterson, Gottfried & Hunter, Ltd., 146-
 150 Centre St., New York.
 Prentiss Tool & Supply Co., 115 Liberty
 St., New York.
 H. A. Rogers Co., 19 John St., New
 York.
 Scully Steel & Iron Co., 69 N. Halsted
 St., Chicago, Ill.
 Vandyck-Churchill Co., 8 Dey St., N. Y.
 C. C. Wormer Machinery Co., Detroit,
 Mich.
Cutters, Butter—
 Cleveland Galvanizing Works, Cleveland.
Cutters, Button Hole—
 Eyelet Tool Co., Boston, Mass.
 H. Heinisch's Sons Co., Newark, N. J.
 National Cutlery Co., Philadelphia, Pa.
Cutters, Cabbage—
 American Fork & Hoe Co., Cleveland, O.
Cutters, Chain Link—
 Brown & Sharpe Mfg. Co., Providence,
 R. I.
 Turner Vaughn & Taylor Co., Cuyahoga
 Falls, O.
Cutters, Cigar—
 Billings & Spencer Co., Hartford, Ct.
 Erie Specialty Co., Erie, Pa.
**Cutters, Convex and Con-
 cave—**
 Brown & Sharpe Mfg. Co., Providence,
 R. I.
 Morse Twist Drill & Machine Co., New
 Bedford, Mass.
 Pratt & Whitney Co., Hartford, Ct.
 Standard Tool Co., Cleveland, O.
 Union Twist Drill Co., Athol, Mass.
**Cutters, Cork, Cloth, Leath-
 er, Paper—**
 Henry Diston & Sons, Philadelphia, Pa.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.
Cutters, Dandelion—
 Pritchard-Strong Co., Rochester, N. Y.
**Cutters, Feed and Ensil-
 lage—**
 A. Buch's Sons Co., Elizabethtown, Pa.
 Alfred Field & Co., 93 Chambers St.,
 New York.
 S. Freeman & Sons Mfg. Co., Racine,
 Wis.
 Ney Mfg. Co., Canton, O.
 Silver Mfg. Co., Salem, O.
Cutters, File—
 Utica Drop Forge & Tool Co., Utica,
 N. Y.
Cutters, Flue, Pneumatic—
 Chicago Pneumatic Tool Co., Fisher
 Bldg., Chicago, Ill.

Ingersoll-Rand Co., 11 Broadway, New
 York.
 Stow Flexible Shaft Co., 26th & Callow-
 hill Sts., Philadelphia, Pa.
Cutters, Gear—
 (See Cutters, Milling, and also Gear Cut-
 ting Machines.)
Cutters, Glass—
 W. L. Barrett, Bristol, Ct.
 Bonney Vise & Tool Works, 3011-3015
 Chestnut St., Philadelphia, Pa.
 Goodell-Pratt Co., Greenfield, Mass.
 H. H. Mayhew Co., Shelburne Falls,
 Mass.
 Millers Falls Co., 28 Warren St., N. Y.
 S. G. Monce, Unionville, Ct.
 Pritchard-Strong Co., Rochester, N. Y.
 Smith & Hemenway Co., 108-110 Duane
 St., New York.
Cutters, Glass, Diamond—
 Est. of John Dickinson, 64 Nassau St.,
 New York.
 Smith & Hemenway Co., 108-110 Duane
 St., New York.
Cutters, Glass Tube—
 W. L. Barrett, Bristol, Ct.
 Bonney Vise & Tool Works, 3011-3015
 Chestnut St., Philadelphia, Pa.
 Est. of John Dickinson, 64 Nassau St.,
 New York.
 H. A. Rogers Co., 19 John St., New York.
 Lunkenheimer Co., Cincinnati, O.
 S. G. Monce, Unionville, Ct.
 Smith & Hemenway Co., 108-110 Duane
 St., New York.
Cutters, Grass—
 Smith & Hemenway Co., 108-110 Duane
 St., New York.
Cutters, Summer—
 E. C. Atkins & Co., Indianapolis, Ind.
 Butterfield & Co., Derby Line, Vt.
Cutters, Key Way—
 (See Key Way Machines.)
Cutters, Lead Pipe—
 Vandernan Plumbing & Heating Co.,
 Willimantic, Ct.
**Cutters, Letter, Steel and
 Brass—**
 Schwerdtle Stamp Co., Bridgeport, Ct.
Cutters, Lock Corner—
 Henry Diston & Sons, Philadelphia, Pa.
**Cutters, Meat, Food and
 Vegetable—**
 Athol Machine Co., Athol, Mass.
 John Chatillon & Sons, 85 Cliff St., N. Y.
 Enterprise Mfg. Co., Philadelphia, Pa.
 John H. Graham & Co., 113 Chambers
 St., New York.
 Hollands Mfg. Co., Erie, Pa.
 Landers, Frary & Clark, New Britain, Ct.
 North Bros. Mfg. Co., Philadelphia, Pa.
 Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.
 Rollman Mfg. Co., Mount Joy, Pa.
 Russell & Erwin Mfg. Co., 43-7 Chambers
 St., New York.
 Smith & Hemenway Co., 108-110 Duane
 St., New York.
Cutters, Milling—
 American Die & Tool Co., Reading, Pa.
 Becker-Brainerd Milling Machine Co.,
 Hyde Park, Mass.
 Boston Gear Works, Boston, Mass.
 Brown & Sharpe Mfg. Co., Providence,
 R. I.
 Cleveland Twist Drill Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York
Garvin Machine Co., Spring and Varick
Sta., New York.

Geometric Tool Co., New Haven, Ct.
Gould & Eberhardt, Newark, N. J.
Massachusetts Tool Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New
Bedford, Mass.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Pratt & Whitney Co., Hartford, Ct.
Wm. Sellers & Co. (Inc.), Philadelphia.
Sigourney Tool Co., Hartford, Ct.
Standard Tool Co., Cleveland, O.
Union Twist Drill Co., Athol, Mass.
D. E. Whiton Machine Co., New London,
Ct.

Cutters, Paper—
Howard Iron Works, Buffalo, N. Y.
Ludlow-Saylor Wire Co., St. Louis, Mo.

Cutters, Penny Nail—
National Cutlery Co., Detroit, Mich.

Cutters, Pipe and Tube—
American Die & Tool Co., Reading, Pa.
American Tube & Stamping Co., Bridge-
port, Ct.

Barnes Tool Co., New Haven, Ct.
Bignall & Keeler Mfg. Co., Edwardsville,
Ill.

Butterfield & Co., Derby Line, Vt.
Curtis & Ourtis Co., Bridgeport, Ct.
Fairbanks Co., 416 Broome St., New York.
Fox Machine Co., Grand Rapids, Mich.
Hollands Mfg. Co., Erie, Pa.

O. E. Jennings & Co., 42 Murray St.,
New York.
Morse Twist Drill & Machine Co., New
Bedford, Mass.

National Machinery Co., Tiffin, O.
R. S. Newbold & Son Co., Norristown,
Pa.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Pratt & Whitney Co., Hartford, Ct.
D. Saunders' Sons, Yonkers, N. Y.
Stoerer Foundry & Mfg. Co., Myerstown,
Pa.

Trimont Mfg. Co., Roxbury, Mass.
Walworth Mfg. Co., Boston, Mass.
J. H. Williams & Co., Brooklyn, N. Y.

Cutters, Potato—
Hollman Mfg. Co., Mt. Joy, Pa.

**Cutters, Reamer and Twist
Drill—**
Brown & Sharpe Mfg. Co., Providence,
R. I.

Morse Twist Drill & Machine Co., New
Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.
Standard Tool Co., Cleveland, O.
Union Twist Drill Co., Athol, Mass.
Walworth Mfg. Co., Boston, Mass.

Cutters, Rod—
Belden Machine Co., New Haven, Ct.
Chandler & Farquhar Co., Boston, Mass.
C. S. Mersick & Co., New Haven, Ct.
Niagara Machine & Tool Works, Buffalo,
Watson-Stillman Co., 46 Dey St., New
York.

Cutters, Root, Vegetable—
A. Buch's Sons Co., Elizabethtown, Pa.
Cutaway Harrow Co., Higganum, Ct.
Lane Bros. Co., Poughkeepsie, N. Y.
R. W. Whitehurst Co., Norfolk, Va.

Cutters, Sewing Thread—
E. O. Cook Co., Ansonia, Ct.

Cutters, Slaw, Krant, &c.—
E. C. Atkins & Co., Indianapolis, Ind.
Henry Diston & Sons, Philadelphia, Pa.
Enterprise Mfg. Co., Philadelphia, Pa.
Landers, Frary & Clark, New Britain, Ct.
National Saw Co., Newark, N. J.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Cutters, Smoked Beef—
Coldwell Lawn Mower Co., Newburgh,
N. Y.

Enterprise Mfg. Co., Philadelphia, Pa.

Cutters, Sprocket Wheel—
Brown & Sharpe Mfg. Co., Providence,
R. I.

Morse Twist Drill & Machine Co., New
Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.
Standard Tool Co., Cleveland, O.

Union Twist Drill Co., Athol, Mass.

Cutters, Sprue—
Adriance Machine Works, Brooklyn, N. Y.

E. W. Bliss Co., Brooklyn, N. Y.
Gould & Eberhardt, Newark, N. J.
Hilles & Jones Co., Wilmington, Del.

Chas. Leffler & Co., Brooklyn, N. Y.
Niles-Bement-Pond Co., 111 Broadway,
New York.

S. Obermayer Co., Cincinnati, O.

F. B. Shuster Co., New Haven, Ct.

J. D. Smith Foundry Supply Co., Cleve-
land, O.

Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Cutters, Stay Bolt—
Acme Machinery Co., Cleveland, O.

Helwig Mfg. Co., St. Paul, Minn.

National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Standard Machinery Co., Bowling Green, O.

Stow Flexible Shaft Co., 25th & Callow-
hill Sta., Philadelphia, Pa.

Cutters, Thistle or Weed—
American Fork & Hoe Co., Cleveland, O.

Cutters, T Slot—
Brown & Sharpe Mfg. Co., Providence, R. I.

Morse Twist Drill & Machine Co., New
Bedford, Mass.

Standard Tool Co., Cleveland, O.

Union Twist Drill Co., Athol, Mass.

Cutters, Tobacco and Root—
Enterprise Mfg. Co., Philadelphia, Pa.

Eric Specialty Co., Erie, Pa.

North Bros. Mfg. Co., Philadelphia, Pa.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Reading Hardware Co., Reading, Pa.

Wrightsville Hardware Co., Wrightsville,
Pa.

Cutters, Vegetable—
E. C. Atkins & Co., Indianapolis, Ind.

Henry Diston & Sons, Philadelphia, Pa.

Cutters, Veneer—
Farrel Foundry & Mach. Co., Ansonia, Ct.

Cutters, Washer—
Bonney Vise & Tool Works, 3011-3015
Chestnut St., Philadelphia, Pa.

Goodell-Pratt Co., Greenfield, Mass.

Smith & Hemenway Co., 108-110 Duane,
St., New York.

Otis A. Smith, Rockfall, Ct.

Cutters, Wire—
Billings & Spencer Co., Hartford, Ct.

Bridgeport Hardware Mfg. Co., Bridge-
port, Ct.

Helwig Mfg. Co., St. Paul, Minn.
J. M. King & Co., Waterford, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
H. K. Porter, Everett, Mass.
F. R. Shuster Co., New Haven, Ct.
J. D. Smith Foundry Supply Co., Cleveland, O.

(See also Pliers.)

Cutters, Wire Rope—

A. L. Henderer's Sons, Wilmington, Del.

Cutting and Straightening Machines, Wire—

(See Straightening and Cutting Machines, Wire.)

Cutting Attachments, Rack—

Brown & Sharpe Mfg. Co., Providence, R. I.
Cincinnati Milling Machine Co., Cincinnati, O.
Garvin Machine Co., Spring and Varick Sts., New York.

Cutting Dies, Nippers—
(See Dies, Nippers.)

Cutting Machines, Rack—

Mark Flather Planer Co., Nashua, N. H.
Gould & Eberhardt, Newark, N. J.
Niles-Bement-Pond Co., 111 Broadway, New York.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
F. E. Reed Co., Worcester, Mass.
Dwight Slate Machine Co., Hartford, Ct.

MERCHANTS.

Hill, Clarke & Co., Boston, Mass.

Cutting-Off and Centering Machines, Double, for Axes—

Fawcett Machine Co., Pittsburgh, Pa.
Niles-Bement-Pond Co., 111 Broadway, New York.

Cutting-Off Machines—

Badger State Machine Co., Janesville, Wis.
Billings & Spencer Co., Hartford, Ct.
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
W. F. Davis Machine Co., Rochester, N. Y.
Esen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.
Hartford Machine Screw Co., Hartford, Ct.
Harrist Rogers Machine Co., South Sudbury, Mass.
Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.
Niles-Bement-Pond Co., 111 Broadway, New York.
Nutter, Barnes & Co., Boston, Mass.
Pratt & Whitney Co., Hartford, Ct.

MERCHANTS.

J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
Fairbanks Co., 416 Broome St., New York.
Hill, Clarke & Co., Boston, Mass.
Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.
Thornton Machinery Co., Providence, R. I.
Vandyck-Churchill Co., 8 Dey St., N. Y.
C. C. Wormer Machinery Co., Detroit, Mich.

Cutting-Off Machines, Cold Saw—

Esen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.
Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.
Niles-Bement-Pond Co., 111 Broadway, New York.
Nutter, Barnes & Co., Boston, Mass.
Pratt & Whitney Co., Hartford, Ct.
Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

MERCHANTS.

J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
Fairbanks Co., 416 Broome St., New York.
Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.
Motch & Merryweather Machinery Co., Cleveland, O.
H. A. Rogers Co., 19 John St., New York.

Cutting-Off Machines for Self Hardening Steel—

Armstrong Bros. Tool Co., 617 Austin Ave., Chicago, Ill.

Cutting-Off Machines, Log—

Lane Mfg. Co., Montpelier, Vt.

Cutting-Off Tools—

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., Hartford, Ct.
Goodell Mfg. Co., Greenfield, Mass.
Hill-Standard Mfg. Co., Anderson, Ind.
O. K. Tool Holder Co., Shelton, Ct.
Pratt & Whitney Co., Hartford, Ct.
Dwight Slate Machine Co., Hartford, Ct.
Walworth Mfg. Co., Boston, Mass.

Cycle Hangers—

(See Hangers.)

Cycles—

(See Bicycles and Sundries.)

Cyclometers—

John H. Graham & Co., 113 Chambers St., New York.

Veeder Mfg. Co., Hartford, Ct.

Cylinder Head Turning Machines—

(See Turning Machines, Cylinder Head.)

Cylinders, Ammonia and Carbonic Acid—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.
Janney Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
Meehan Boiler & Construction Co., Lowellville, O.
National Tube Co., Pittsburgh, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh.

Cylinders, Deep Well—

American Steam Pump Co., Battle Creek, Mich.

Cylinders for Hydraulic Elevators—

Dimmick Pipe Co., Birmingham, Ala.

Cylinders, Irrigation—

Mast, Foss & Co., Springfield, O.

Cylinders, Pump—
(See Well Supplies and Tools.)

Cylinders, Steel—

Avery Stamping Co., Cleveland, O.
 Janney, Steinmetz & Co., Drexel Bldg.,
 Philadelphia, Pa.
 Meehan Boiler & Construction Co.,
 Lowellville, O.
 National Tube Co., Pittsburgh, Pa.
 Wm. B. Scaife & Sons Co., Pittsburgh.

Damper Clips, Regulators—
 (See Clips, Regulators.)**Dampers, Pipe—**

American Blower Co., Detroit, Mich.
 Arcade Mfg. Co., Freeport, Ill.
 Berger Bros. Co., 231-237 Arch St., Phila-
 delphia, Pa.
 Fanner Mfg. Co., Cleveland, O.
 Gray Iron Foundry Co., Reading, Pa.
 Hollands Mfg. Co., Erie, Pa.
 S. M. Howes Co., Boston, Mass.
 Kramer Bros. Foundry Co., Dayton, O.
 Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.
 Pleuger & Henger Mfg. Co., St. Louis.
 Reeves Mfg. Co., Canal Dover, O.
 Republic Metalware Co., Buffalo, N. Y.
 Root Bros. Co., Plymouth, O.
 Schreiber & Conchar Mfg. Co., Dubuque,
 Ia.
 Susquehanna Casting Co., Wrightsville,
 Pa.
 Taylor & Boggis Foundry Co., Cleveland.
 A. C. Williams, Ravenna, O.

Dandy Rolls—

(See Rolls, Dandy.)

Darners, Glove and Stock-

ing—
 Baker McMillen Co., Akron, O.

Dashes and Fenders, Car-

riage, Automobile, &c.—
 McKinnon Dash Co., Buffalo, N. Y.

Dashes, Screen—

Hendrick Mfg. Co., Carbondale, Pa.
 Charles Mundt & Sons, 441-447 Pearl St.,
 New York.
 Walter W. Woodruff & Sons Co., Mount
 Carmel, Ct.

Daters—

(See Stamps, Dating.)

Daubers, Shoe—

Kilbourne Mfg. Co., Troy, N. Y.

Dead Eyes—

(See Eyes, Dead, Bull's, &c.)

Deck Blocks, Lights, &c.—

(See Blocks, Lights, &c.)

Deck Molding—

(See Architectural Sheet Metal Work.)

Deckhanger Bolts—

(See Bolts, Special.)

Dehorning Saws—

(See Saws, Dehorning.)

Delivery Wagons—

(See Wagons, Delivery.)

Dental Shears and Snips—

(See Shears and Snips, Dental.)

Dental Wheels—

(See Wheels, Dental.)

Dentils—

(See Cornice, &c.; Galvanized Iron.)

Depth Gauges—

(See Gauges, Depth.)

Derricks and Derrick Fit-**tings—**

Broderick & Bascom Rope Co., St. Louis,
 Browning Engineering Co., Cleveland, O.
 Thomas Carlin's Sons, Allegheny, Pa.
 Lane Mfg. Co., Montpelier, Vt.

A. Leschen & Sons Rope Co., St. Louis,
 Lidgerwood Mfg. Co., 96 Liberty St.,
 New York.
 New Jersey Foundry & Machine Co., 9-15
 Murray St., New York.
 Northern Engineering Works, Detroit,
 Mich.
 F. R. Patch Mfg. Co., Rutland, Vt.
 Pittsburgh Industrial Iron Works, Pitts-
 burgh, Pa.
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.
 J. G. Speidel, Reading, Pa.
 Walter A. Zelnicker Supply Co., St. Louis.

MERCHANTS.

Irving Mfg. & Tool Co., 157 Chambers St.,
 New York.
 A. V. Kaiser & Co., 222 S. Third St.,
 Philadelphia, Pa.
 S. Obermayer Co., Cincinnati, O.

Derricks, Sew—

Interstate Engineering Co., Bedford, O.

Derricks, Steel—

American Bridge Co. of New York, 42
 Broadway, New York.
 Interstate Engineering Co., Bedford, O.

Desk Slides—

(See Slides, Desk.)

Interstate Engineering Co., Bedford, O.

Desk Specialties, Silver

Plated Inkstands, Calen-

dars, Pen Wipers, Paper

Files—

International Silver Co., 9-13 Maiden Lane,
 New York.

Desks, Children's—

Maine Mfg. Co., Nashua, N. H.

Desks, Office—

E. B. Estes & Sons, 45-47 John St., N. Y.

J. D. Warren Mfg. Co., Chicago, Ill.

Diamond Emery Wheel**Dressers—**

(See Dressers, Emery Wheel.)

Diamond Points—

(See Points.)

Diamond Tools—

(See Tools, Diamond.)

Diamonds, Glaziers—

(See Cutters, Glass, Diamond.)

Diaphragms, Rubber—

New York Belting & Packing Co., 91-93
 Chambers St., New York.

Die Blocks—

American Die & Tool Co., Reading, Pa.
 Colonial Steel Co., Pittsburgh, Pa.
 Crucible Steel Casting Co., Lansdowne,
 Pa.

Philadelphia Roll & Machine Co., 23d St.,
 Washington Ave., Philadelphia, Pa.

Pratt & Whitney Co., Hartford, Ct.

Tindel-Morris Co., Eddystone, Pa.

Worcester Steel Foundry Co., Worcester,
 Mass.

Die Heads, Screw Cutting—

Acme Machinery Co., Cleveland, O.

Geometric Tool Co., New Haven, Ct.

Hartford Machine Screw Co., Hartford, Ct.

Jones & Lamson Machine Co., Spring-
 field, Vt.

National Machinery Co., Tiffin, O.

Pratt & Whitney Co., Hartford, Ct.

Die Holders, for Screw Ma-

chines—

Brown & Sharpe Mfg. Co., Providence,
 R. I.

Die Holders, Plate—

(See Holders, Plates.)

Die Makers—
(See Die Sinkers.)

Die Sinkers—

Adriance Machine Works, Brooklyn, N. Y.
American Die & Tool Co., Reading, Pa.
American Tube & Stamping Co., Bridgeport, Ct.
Billings & Spencer Co., Hartford, Ct.
Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
E. D. Clapp Mfg. Co., Auburn, N. Y.
Glen Rock Stamping Co., Glen Rock, Pa.
Hay-Budden Mfg. Co., Brooklyn, N. Y.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Howard Iron Works, Buffalo, N. Y.
John R. Keim Mills, Buffalo, N. Y.
Kerstone Drop Forge Works, Chester, Pa.
Kilborn & Bishop Co., New Haven, Ct.
E. Konigsloew Stamping & Tool Works, Cleveland, O.
Chas. Leffler & Co., Brooklyn, N. Y.
New York Stencil Works, 100 Nassau St., New York.
Niagara Machine & Tool Works, Buffalo, N. Y.
Niles-Bement-Pond Co., 111 Broadway, New York.
O. K. Tool Holder Co., Shelton, Ct.
Pratt & Whitney Co., Hartford, Ct.
Richard Mfg. Co., Bloomsburg, Pa.
Russell Economical Furnace Co., 42 W. Quincy St., Chicago, Ill.
Schatz Hardware Co., Chappaqua, N. Y.
Schwerdtle Stamp Co., Bridgeport, Ct.
Tra B. Smith, Bristol, Ct.
Stamping & Tool Co., La Crosse, Wis.
Stiles-Morse Co., Western Union Bldg., Chicago, Ill.
V. & O. Press Co., Brooklyn, N. Y.
W. & S. Mfg. Co., Worcester, Mass.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
Wheeling Mold & Foundry Co., Wheeling, W. Va.
J. H. Williams & Co., Brooklyn, N. Y.

Die Sinkers' Vises—
(See Vises, Die Sinkers'.)

Die Sinking—
(See Die Sinkers.)

Die Sinking Machines—
Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.

Die Stocks, Adjustable—
Butterfield & Co., Derby Line, Vt.
Hart Mfg. Co., Cleveland, O.

Die Stocks, Lathe—
Standard Machinery Co., Bowling Green, O.

Die Stocks, Ratchet—
Hart Mfg. Co., Cleveland, O.
Pratt & Whitney Co., Hartford, Ct.
Walworth Mfg. Co., Boston, Mass.
Wells Bros. Co., Greenfield, Mass.

Dies, Adjustable—
Adriance Machine Works, Brooklyn, N. Y.
Butterfield & Co., Derby Line, Vt.

Dies, Adjustable, Expanding—

Acmé Machinery Co., Cleveland, O.
E. W. Bliss Co., Brooklyn, N. Y.
J. M. Carpenter Tap & Die Co., Pawtucket, R. I.
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Chas. Leffler & Co., Brooklyn, N. Y.

National Machinery Co., Tiffin, O.
Pratt & Whitney Co., Hartford, Ct.
E. F. Reece Co., Greenfield, Mass.
I. Saunders' Sons, Yonkers, N. Y.
Wells Bros. Co., Greenfield, Mass.

Dies and Stamps, Soap—
New York Stencil Works, 100 Nassau St., New York.

Dies and Stamps, Steel—
(See Stamps and Dies, Steel.)

Dies and Taps—
(See Stocks, Taps and Dies.)

Dies, Automatic—
Adriance Machine Works, Brooklyn, N. Y.
E. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.
Geometric Tool Co., New Haven, Ct.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Jones & Lamson Machine Co., Springfield, Vt.

Chas. Leffler & Co., Brooklyn, N. Y.
Pinkerton Mfg. Co., 2631 N. 34th St., Philadelphia, Pa.

Fred J. Swaine Co., St. Louis, Mo.
V. & O. Press Co., Brooklyn, N. Y.

Dies, Chilled Cast Wire—
Philadelphia Roll & Machine Co., 23d St., & Washington Ave., Philadelphia.

Dies, Clay Working—
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Dies, Cutting—
Adriance Machine Works, Brooklyn, N. Y.
Advance Mfg. Co., Racine Junction, Wis.
American Die & Tool Co., Reading, Pa.
Baird Machine Co., Oakville, Ct.
Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Butterfield & Co., Derby Line, Vt.
Cleveland Stamping & Tool Co., Cleveland, O.

Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.
Gem Mfg. Co., Pittsburgh, Pa.
Glen Rock Stamping Co., Glen Rock, Pa.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Hillies & Jones Co., Wilmington, Del.
Kilborn & Bishop Co., New Haven, Ct.
Chas. Leffler & Co., Brooklyn, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pratt & Whitney Co., Hartford, Ct.
E. F. Reece, Greenfield, Mass.
Richard Mfg. Co., Bloomsburg, Pa.
Schatz Hardware Mfg. Co., Chappaqua, N. Y.

Sigourney Tool Co., Hartford, Ct.
Fred J. Swaine Co., St. Louis, Mo.
V. & O. Press Co., Brooklyn, N. Y.
W. & S. Mfg. Co., Worcester, Mass.
Webster & Perks Tool Co., Springfield, O.
Wells Bros. Co., Greenfield, Mass.
L. & I. J. White Co., Buffalo, N. Y.

Dies for Metal Ceiling Work—

E. W. Bliss Co., Brooklyn, N. Y.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Dies, Opening—
Adriance Machine Works, Brooklyn, N. Y.
Butterfield & Co., Derby Line, Vt.
Geometric Tool Co., New Haven, Ct.
Pratt & Whitney Co., Hartford, Ct.

Wells Bros. Co., Greenfield, Mass.
 Wiley & Russell Mfg. Co., Greenfield, Mass.

Dies, Punching—

Adriance Machine Works, Brooklyn, N. Y.
 Advance Mfg. Co., Racine Junction, Wis.
 American Die & Tool Co., Reading, Pa.
 Badger State Machine Co., Janesville, Wis.

Baird Machine Co., Oakville, Ct.
 Blake & Johnson, Waterbury, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Chas. F. Elmes Engineering Works, 253 259 Fulton St., Chicago, Ill.
 Gem Mfg. Co., Pittsburgh, Pa.
 W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
 Kilborn & Bishop Co., New Haven, Ct.
 E. Konigslow Stamping & Tool Works, Cleveland, O.

Chas. Leffler & Co., Brooklyn, N. Y.
 McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Schatz Hardware Mfg. Co., Chappaqua, N. Y.

Fred J. Swaine Co., St. Louis, Mo.
 V. & O. Press Co., Brooklyn, N. Y.
 W. & S. Mfg. Co., Worcester, Mass.

Dies, Self Opening—

Acme Machinery Co., Cleveland, O.
 National Machinery Co., Tiffin, O.
 Pinkerton Mfg. Co., 2631 N. 34th St., Philadelphia, Pa.

Dies, Sheet Metal Working—

Adriance Machine Works, Brooklyn, N. Y.
 Advance Mfg. Co., Racine Junction, Wis.
 American Die & Tool Co., Reading, Pa.
 Baird Machine Co., Oakville, Ct.

Blake & Johnson, Waterbury, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Cleveland Stamping & Tool Co., Cleveland, O.

Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Gem Mfg. Co., Pittsburgh, Pa.
 W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
 Kilborn & Bishop Co., New Haven, Ct.

Chas. Leffler & Co., Brooklyn, N. Y.
 McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

Geo. M. Ness, Jr., 61 Fulton St., New York.

Niagara Machine & Tool Works, Buffalo, N. Y.

Geo. A. Ohl & Co., Newark, N. J.
 Schatz Hardware Mfg. Co., Chappaqua, N. Y.

Fred J. Swaine Co., St. Louis, Mo.
 V. & O. Press Co., Brooklyn, N. Y.

Dies, Shipyard—

(See Punches and Dies.)

Dies, Solid Bolt—

Butterfield & Co., Derby Line, Vt.
 Standard Tool Co., Cleveland, O.
 Wells Bros. Co., Greenfield, Mass.

Dies, Solid Pipe—

Butterfield & Co., Derby Line, Vt.
 Morse Twist Drill & Machine Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.
 D. Saunders' Sons, Yonkers, N. Y.
 Walworth Mfg. Co., Boston, Mass.
 Wells Bros. Co., Greenfield, Mass.

Dies, Stamping—

Adriance Machine Works, Brooklyn, N. Y.
 American Die & Tool Co., Reading, Pa.
 Avery Stamping Co., Cleveland, O.
 Baird Machine Co., Oakville, Ct.

Blake & Johnson, Waterbury, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Cleveland Stamping & Tool Co., Cleveland, O.

Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.

Gem Mfg. Co., Pittsburgh, Pa.

Glen Rock Stamping Co., Glen Rock, Pa.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Hilles & Jones Co., Wilmington, Del.

Kilborn & Bishop Co., New Haven, Ct.

E. Konigslow Stamping & Tool Works, Cleveland, O.

Chas. Leffler & Co., Brooklyn, N. Y.

Frank Mossberg Co., Attleboro, Mass.

Niagara Machine & Tool Works, Buffalo, N. Y.

Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.

Richard Mfg. Co., Hoonersburg, Pa.

Schatz Hardware Mfg. Co., Chappaqua, N. Y.

Fred J. Swaine Co., St. Louis, Mo.

V. & O. Press Co., Brooklyn, N. Y.

W. & S. Mfg. Co., Worcester, Mass.

J. H. Williams & Co., Brooklyn, N. Y.

Dies, Stencil Cutting—

Geo. M. Ness, Jr., 61 Fulton St., N. Y.

New York Stencil Works, 100 Nassau St., New York.

Schwerdtle Stamp Co., Bridgeport, Ct.

Dies, Thread Cutting—

(See Stocks, Taps, Dies.)

Dies, Threading—

American Die & Tool Co., Reading, Pa.

Dies, Welding—

P. F. Burke, Boston, Mass.

Dies, Wiring—

E. W. Bliss Co., Brooklyn, N. Y.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Dies, Wood Printing—

New York Stencil Works, 100 Nassau St., New York.

Differential Pulley Blocks—

(See Blocks, Differential Pulley.)

Digesters, Pulp—

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

Diggers, Post Hole—

Avery Stamping Co., Cleveland, O.

Henry Duxton & Sons, Philadelphia, Pa.

Hubbard & Co., Pittsburgh, Pa.

Iwan Bros., Streator, Ill.

F. E. Kohler & Co., Canton, O.

Ludlow-Saylor Wire Co., St. Louis, Mo.

J. E. Porter Co., Ottawa, Ill.

Vaughan & Bushnell Mfg. Co., Chicago.

(See also Augers, Post Hole.)

Diggers, Potato—

American Fork & Hoe Co., Cleveland, O.

Bateman Mfg. Co., Grenloch, N. J.

Dimension Gauges—

(See Gauges, Dimension.)

Dinner Casters—

(See Casters, Silver Plated.)

Dinner Pails—
(See Pails, Dinner.)

Disc Notching Machines—
(See Notching Machines, Armature Disc.)

Disc Sharpeners—
Chicago Wheel & Mfg. Co., 39-45 W.
Randolph St., Chicago, Ill.
Gardner Machine Co., Beloit, Wis.

Discs, Armature—
Avery Stamping Co., Cleveland, O.
Hendrick Mfg. Co., Carbondale, Pa.
W. & S. Mfg. Co., Worcester, Mass.
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

**Discs, Hot or Cold Iron Cut-
ting—**
Henry Disston & Sons, Philadelphia, Pa.

Discs, Rubber—
(See Gaskets and Rings, Rubber.)

Discs, Valve—
A. Allan & Son, 486 Greenwich St., N. Y.
New York.
Jenkins Bros., 71 John St., New York.
Lunkenheimer Co., Cincinnati, O.
New York Belting & Packing Co., 91-93
Chambers St., New York.
Walworth Mfg. Co., Boston, Mass.

Dish Drainers—
(See Drainers, Kitchen Articles.)

Dish Machinery, Wood—
Defiance Machine Works, Defiance, O.

Dishers, Ice Cream—
Erie Specialty Co., Erie, Pa.

Dishes, Baking—
New York Stamping Co., Brooklyn, N. Y.

**Dishes, Berry, Butter, Fruit,
Ment, &c., Silver Plated—**
International Silver Co., 9-13 Maiden Lane,
N. Y.

Dishes, Butter, Wooden—
Richmond Cedar Works, Richmond, Va.
(See also Plates, Butter and Pie.)

Dishes, Chaffin—
Goodwin & Kintz Co., Winsted, Ct.
International Silver Co., 9-13 Maiden Lane,
N. Y.

**Lalance & Grosjean Mfg. Co., 19 Cliff St.,
New York.**

New York Stamping Co., Brooklyn, N. Y.

Dishes, Chaffin, Electric—
General Electric Co., Schenectady, N. Y.

Dishes, Soap—
Columbia Grey Iron Co., Columbia, Pa.
Reading Hardware Co., Reading, Pa.
A. C. Williams, Ravenna, O.
Wrightsville Hardware Co., Wrightsville,
Pa.

Dispensers, Factory—
Delphos Can Co., Delphos, O.

Distilling Apparatus—
E. B. Badger & Sons Co., Boston, Mass.

Ditching Shovels—
(See Shovels, Tiling or Ditching.)

**Divider Pencil Attach-
ments—**
(See Pencil Attachments, Divider.)

Dividers, Angle—
Stanley Rule & Level Co., New Britain,
Ct.

Dividers, Compasses, &c.—
(See Compasses, Dividers, &c.)

Dividers, Parallel—
Massachusetts Tool Co., Greenfield, Mass.

Dividing Heads—
(See Heads, Dividing, Indexing.)

Dock Spikes—
(See Spikes, Dock, Wharf, &c.)

Document Boxes—
(See Boxes, Document.)

Dog Calls, Chain—
(See Calls, Chain.)

Dog Furnishings—
Oneida Community, Kenwood, N. Y.
Smith & Egge Mfg. Co., Bridgeport, Ct.
Tower & Lyon Co., 95 Chambers St.,
New York.

Union Hardware Co., Torrington, Ct.
Wire Goods Co., Worcester, Mass.

Dogs, Clamp—
Armstrong Bros. Tool Co., 617-621 Austin
Ave., Chicago, Ill.
Billings & Spencer Co., Hartford, Ct.
Wm. G. Le Count, So. Norwalk, Ct.

Dogs, Lathes—
Armstrong Bros. Tool Co., 617-621 Austin
Ave., Chicago, Ill.
Chas. H. Besly & Co., 15-21 Clinton St.,
Chicago, Ill.
Billings & Spencer Co., Hartford, Ct.
Bonney Vise & Tool Works, 3011-3015
Chestnut St., Philadelphia, Pa.
Fairbanks Co., 416 Broome St., New York
Hill-Standard Mfg. Co., Anderson, Ind.
Wm. G. Le Count, So. Norwalk, Ct.
Niles-Bement-Pond Co., 111 Broadway,
New York.

O. K. Tool Holder Co., Shelton, Ct.
Richmond Forgings Co., Richmond, Va.
J. H. Williams & Co., Brooklyn, N. Y.

Dogs, Milling Machine—
J. H. Williams & Co., Brooklyn, N. Y.

Dogs, Ring and Chain—
Kentucky Chain Co., Frankfort, Ky.
Standard Chain Co., Pittsburgh, Pa.
Trow & Holden, Barre, Vt.

Dogs, Saw Mill—
E. C. Atkins & Co., Indianapolis, Ind.
Solid Steel Tool & Forge Co., Tarentum,
Pa.

Soule Steam Feed Works, Meridian, Miss.
Walter A. Zelnicker Supply Co., St. Louis.

Dollies, Timber—
Chase Foundry & Mfg. Co., Columbus, O.
City Forge & Iron Works, Dayton, O.
Fairbanks Co., 416 Broome St., New York.
Peter Gerlach Co., Cleveland, O.
Kilbourne & Jacobs Mfg. Co., Colum-
bus, O.

Soule Steam Feed Works, Meridian, Miss.
Standard Scale & Supply Co., Pittsburgh.

Domes for Observatories—
W. N. Kratzer & Co., Pittsburgh, Pa.

Door Bell Handles—
(See Handles, Door Bell.)

**Door Bells, Bolts, Checks,
&c.—**
(See Bells, Bolts, Checks, &c.)

Door Mats, Wire and Steel—
(See Mats, Wire and Steel.)

Door Plates—
(See Plates, Door.)

**Doors and Shutters, Iron
and Steel—**
Anchor Post Iron Works, 41 Park Row,
New York.
Berger Mfg. Co., Canton, O.
Bethlehem Foundry & Machine Co., South
Bethlehem, Pa.
Chesapeake Iron Works, Baltimore, Md.
Forest City Steel & Iron Co., Cleveland.
Garry Iron & Steel Co., Cleveland, O.

Wells Bros. Co., Greenfield, Mass.
Wiley & Russell Mfg. Co., Greenfield, Mass.

Dies, Punching—

Adriance Machine Works, Brooklyn, N. Y.
Advance Mfg. Co., Racine Junction, Wis.
American Die & Tool Co., Reading, Pa.
Badger State Machine Co., Janesville, Wis.

Baird Machine Co., Oakville, Ct.
Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Chas. F. Elmes Engineering Works, 253 259 Fulton St., Chicago, Ill.
Gem Mfg. Co., Pittsburgh, Pa.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Kilborn & Bishop Co., New Haven, Ct.
E. Konigsfow Stamping & Tool Works, Cleveland, O.

Chas. Leffler & Co., Brooklyn, N. Y.
McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Schatz Hardware Mfg. Co., Chappaqua, N. Y.

Fred J. Swaine Co., St. Louis, Mo.
V. & O. Press Co., Brooklyn, N. Y.
W. & S. Mfg. Co., Worcester, Mass.

Dies, Self Opening—

Acme Machinery Co., Cleveland, O.
National Machinery Co., Tiffin, O.
Pinkerton Mfg. Co., 2531 N. 34th St., Philadelphia, Pa.

Dies, Sheet Metal Working—

Adriance Machine Works, Brooklyn, N. Y.
Advance Mfg. Co., Racine Junction, Wis.
American Die & Tool Co., Reading, Pa.
Baird Machine Co., Oakville, Ct.
Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Cleveland Stamping & Tool Co., Cleveland, O.

Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Gem Mfg. Co., Pittsburgh, Pa.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Kilborn & Bishop Co., New Haven, Ct.

Chas. Leffler & Co., Brooklyn, N. Y.

McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

Geo. M. Ness, Jr., 61 Fulton St., New York.

Niagara Machine & Tool Works, Buffalo, N. Y.

Geo. A. Ohl & Co., Newark, N. J.

Schatz Hardware Mfg. Co., Chappaqua, N. Y.

Fred J. Swaine Co., St. Louis, Mo.

V. & O. Press Co., Brooklyn, N. Y.

Dies, Shipyard—

(See Punches and Dies.)

Dies, Solid Bolt—

Butterfield & Co., Derby Line, Vt.

Standard Tool Co., Cleveland, O.

Wells Bros. Co., Greenfield, Mass.

Dies, Solid Pipe—

Butterfield & Co., Derby Line, Vt.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.
D. Saunders' Sons, Yonkers, N. Y.
Walworth Mfg. Co., Boston, Mass.
Wells Bros. Co., Greenfield, Mass.

Dies, Stamping—

Adriance Machine Works, Brooklyn, N. Y.
American Die & Tool Co., Reading, Pa.
Avery Stamping Co., Cleveland, O.
Baird Machine Co., Oakville, Ct.
Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Cleveland Stamping & Tool Co., Cleveland, O.

Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.

Gem Mfg. Co., Pittsburgh, Pa.

Glen Rock Stamping Co., Glen Rock, Pa.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Kilborn & Bishop Co., New Haven, Ct.

E. Konigsfow Stamping & Tool Works, Cleveland, O.

Chas. Leffler & Co., Brooklyn, N. Y.

Frank Mossberg Co., Attleboro, Mass.

Niagara Machine & Tool Works, Buffalo, N. Y.

Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.

Richard Mfg. Co., Bloomsburg, Pa.

Schatz Hardware Mfg. Co., Chappaqua, N. Y.

Fred J. Swaine Co., St. Louis, Mo.

V. & O. Press Co., Brooklyn, N. Y.

W. & S. Mfg. Co., Worcester, Mass.

J. H. Williams & Co., Brooklyn, N. Y.

Dies, Stencil Cutting—

Geo. M. Ness, Jr., 61 Fulton St., N. Y.

New York Stencil Works, 100 Nassau St., New York.

Schwerdtle Stamp Co., Bridgeport, Ct.

Dies, Thread Cutting—

(See Stocks, Taps, Dies.)

Dies, Threading—

American Die & Tool Co., Reading, Pa.

Dies, Welding—

P. F. Burke, Boston, Mass.

Dies, Wiring—

E. W. Bliss Co., Brooklyn, N. Y.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Dies, Wood Printing—

New York Stencil Works, 100 Nassau St., New York.

Differential Pulley Blocks—

(See Blocks, Differential Pulley.)

Digesters, Pulp—

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

Diggers, Post Hole—

Avery Stamping Co., Cleveland, O.

Henry Disston & Sons, Philadelphia, Pa.

Hubbard & Co., Pittsburgh, Pa.

Iwan Bros., Streator, Ill.

F. E. Kohler & Co., Canton, O.

Ludlow-Saylor Wire Co., St. Louis, Mo.

J. E. Porter Co., Ottawa, Ill.

Vaughan & Bushnell Mfg. Co., Chicago.

(See also Augers, Post Hole.)

Diggers, Potato—

American Fork & Hoe Co., Cleveland, O.

Bateman Mfg. Co., Grenloch, N. J.

Dimension Gauges—

(See Gauges, Dimension.)

Dinner Caster—

(See Casters, Silver Plated.)

Dinner Pails—
(See Pails, Dinner.)

Disc Notching Machines—
(See Notching Machines, Armature Disc.)

Disc Sharpeners—
Chicago Wheel & Mfg. Co., 39-45 W.
Randolph St., Chicago, Ill.
Gardner Machine Co., Beloit, Wis.

Discs, Armature—
Avery Stamping Co., Cleveland, O.
Hendrick Mfg. Co., Carbondale, Pa.
W. & S. Mfg. Co., Worcester, Mass.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Discs, Hot or Cold Iron Cutting—
Henry Disston & Sons, Philadelphia, Pa.

Discs, Rubber—
(See Gaskets and Rings, Rubber.)

Discs, Valve—
A. Allan & Son, 486 Greenwich St., N. Y.
New York.
Jenkins Bros., 71 John St., New York.
Lunkenheimer Co., Cincinnati, O.
New York Belting & Packing Co., 91-93
Chambers St., New York.
Walworth Mfg. Co., Boston, Mass.

Dish Drainers—
(See Drainers, Kitchen Articles.)

Dish Machinery, Wood—
Defiance Machine Works, Defiance, O.

Dishers, Ice Cream—
Erie Specialty Co., Erie, Pa.

Dishes, Baking—
New York Stamping Co., Brooklyn, N. Y.

Dishes, Berry, Butter, Fruit, Meat, &c., Silver Plated—
International Silver Co., 9-13 Maiden Lane, N. Y.

Dishes, Butter, Wooden—
Richmond Cedar Works, Richmond, Va.
(See also Plates, Butter and Pie.)

Dishes, Chaffin—
Goodwin & Kintz Co., Winsted, Ct.
International Silver Co., 9-13 Maiden Lane, N. Y.

Dishes, Groceries—
Lalanc & Grosjean Mfg. Co., 19 Cliff St., New York.

New York Stamping Co., Brooklyn, N. Y.

Dishes, Chaffin, Electric—
General Electric Co., Schenectady, N. Y.

Dishes, Soap—
Columbia Grey Iron Co., Columbia, Pa.
Reading Hardware Co., Reading, Pa.
A. C. Williams, Ravenscroft, O.
Wrightsville Hardware Co., Wrightsville, Pa.

Dispensers, Factory—
Delphos Can Co., Delphos, O.

Distilling Apparatus—
E. B. Badger & Sons Co., Boston, Mass.

Ditching Shovels—
(See Shovels, Tilling or Ditching.)

Divider Pencil Attachments—
(See Pencil Attachments, Divider.)

Dividers, Angle—
Stanley Rule & Level Co., New Britain, Ct.

Dividers, Compasses, &c.—
(See Compasses, Dividers, &c.)

Dividers, Parallel—
Massachusetts Tool Co., Greenfield, Mass.

Dividing Heads—
(See Heads, Dividing, Indexing.)

Dock Spikes—
(See Spikes, Dock, Wharf, &c.)

Document Boxes—
(See Boxes, Document.)

Dog Calls, Chain—
(See Calls, Chain.)

Dog Furnishings—
Oneida Community, Kenwood, N. Y.
Smith & Egge Mfg. Co., Bridgeport, Ct.
Tower & Lyon Co., 35 Chambers St., New York.

Union Hardware Co., Torrington, Ct.
Wire Goods Co., Worcester, Mass.

Dogs, Clamp—
Armstrong Bros. Tool Co., 617-621 Austin Ave., Chicago, Ill.
Billings & Spencer Co., Hartford, Ct.
Wm. G. Le Count, So. Norwalk, Ct.

Dogs, Lathe—
Armstrong Bros. Tool Co., 617-621 Austin Ave., Chicago, Ill.
Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.
Billings & Spencer Co., Hartford, Ct.
Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
Fairbanks Co., 416 Broome St., New York
Hill-Standard Mfg. Co., Anderson, Ind.
Wm. G. Le Count, So. Norwalk, Ct.
Niles-Bement-Pond Co., 111 Broadway, New York.

O. K. Tool Holder Co., Shelton, Ct.
Richmond Forgings Co., Richmond, Va.
J. H. Williams & Co., Brooklyn, N. Y.

Dogs, Milling Machine—
J. H. Williams & Co., Brooklyn, N. Y.

Dogs, Ring and Chain—
Kentucky Chain Co., Frankfort, Ky.
Standard Chain Co., Pittsburgh, Pa.
Trow & Holden, Barre, Vt.

Dogs, Saw Mill—
E. C. Atkins & Co., Indianapolis, Ind.
Solid Steel Tool & Forge Co., Tarentum, Pa.

Soule Steam Feed Works, Meridian, Miss.
Walter A. Zelnicker Supply Co., St. Louis.

Dollies, Timber—
Chase Foundry & Mfg. Co., Columbus, O.
City Forge & Iron Works, Dayton, O.
Fairbanks Co., 416 Broome St., New York.
Peter Gerlach Co., Cleveland, O.
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Soule Steam Feed Works, Meridian, Miss.
Standard Scale & Supply Co., Pittsburgh.

Domes for Observatories—
W. N. Krater & Co., Pittsburgh, Pa.

Door Bell Handler—
(See Handles, Door Bell.)

Door Bells, Bolts, Checks, &c.—
(See Bells, Bolts, Checks, &c.)

Door Mats, Wire and Steel—
(See Mats, Wire and Steel.)

Door Plates—
(See Plates, Door.)

Doors and Shutters, Iron and Steel—
Anchor Post Iron Works, 41 Park Row, New York.

Berger Mfg. Co., Canton, O.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Chesapeake Iron Works, Baltimore, Md.
Forest City Steel & Iron Co., Cleveland.
Garry Iron & Steel Co., Cleveland, O.

Glen Mfg. Co., Ellwood City, Pa.
 M. Lanz & Sons, Pittsburgh, Pa.
 Ludlow-Saylor Wire Co., St. Louis, Mo.
 Ohio Structural Iron Co., Sandusky, O.
 George A. Ohl & Co., Newark, N. J.
 Stewart Iron Works Co., Cincinnati, O.
 Van Dorn Iron Works Co., Cleveland, O.

Doors, Ash Pit—
 (See Iron Work, Builders'.)

Doors, Automatic Hatch—
 Morse, Williams & Co., 1105 Frankford Ave., Philadelphia, Pa.
 Salem Elevator Works, Salem, Mass.
 Warsaw Elevator Co., Warsaw, N. Y.

Doors, Bronze—
 Glen Mfg. Co., Ellwood City, Pa.

Doors, Core Oven—
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Doors, Screen—
 Buffalo Wire Works Co., Buffalo, N. Y.
 Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
 Porter Screen Mfg. Co., Burlington, Vt.

Doors, Screen, to order—
 Phenix Mfg. Co., Milwaukee, Wis.
 A. J. Phillips Co., Fenton, Mich.

Doors, Vault—
 (See Vaults, to order and Burglar Proof.)

Dormant Scales—
 (See Scales, Dormant.)

Double Pointed Tacks—
 (See Tacks, Double Pointed.)

Dowel Pins and Screws—
 (See Pins, Dowel.)

Dowel Tools—
 (See Tools, Dowel, Pin, &c.)

Dowels—
 E. B. Estes & Sons, 45-47 John St., N. Y.
 W. R. Hartigan, Collinsville, Ct.
 Mathew Lanz & Sons, Pittsburgh, Pa.
 Oliver Machinery Co., Grand Rapids, Mich.

Parker Wire Goods Co., Worcester, Mass.

Dowels, Trunk—
 J. H. Sessions & Son, Bristol, Ct.

Draft, Forced and Exhaust.

Apparatus—
 American Blower Co., Detroit, Mich.
 Buffalo Forge Co., Buffalo, N. Y.
 Power Specialty Co., 111 Broadway, New York

B. F. Sturtevant Co., Boston, Mass.
Draft, Mechanical Plants for—

American Blower Co., Detroit, Mich.
 Buffalo Forge Co., Buffalo, N. Y.
 Exeter Machine Works, Exeter, N. H.
 B. F. Sturtevant Co., Boston, Mass.

Drafting Room Furniture—
 (See Furniture, Drafting Room.)

Draftsman's Scales—
 (See Scales, Draftsman's.)

Draftsman's Supplies—

Kenuff & Esser Co., 127 Fulton St., N. Y.

Drag Saws—
 (See Saws, Mill, Mulay, &c.)

Drain Spades—
 American Fork & Hoe Co., Cleveland, O.
 Avery Stamping Co., Cleveland, O.
 Iwan Bros., Streator, Ill.
 Nev Mfg. Co., Canton, O.

Drainers, Cellar—
 Julian D'Este Co., Boston, Mass.

Drainers, Dish—
 Kilbourne Mfg. Co., Troy, N. Y.
 Parker Wire Goods Co., Worcester, Mass.
 Wire Goods Co., Worcester, Mass.

Draw Benches—
 Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.
 Falls Rivet & Machine Co., Cuyahoga Falls, O.

Ford & Donnelly, Kokomo, Ind.
 Gould & Eberhardt, Newark, N. J.
 Morgan Construction Co., Worcester, Mass.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

George A. Ohl & Co., Newark, N. J.
 Richard Mfg. Co., Bloomsburg, Pa.
 Hugh L. Thompson, Waterbury, Ct.
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Watson-Stillman Co., 46 Dey St., New York.

Wright Wire Co., Worcester, Mass.

Draw Benches, Continuous—
 Morgan Construction Co., Worcester, Mass.

Draw Benches, Hydraulic—
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
 Watson-Stillman Co., 46 Dey St., New York.

Drawer Handles, Knobs, Pulls—
 (See Handles, Knobs, Pulls.)

Drawheads, Car—
 Atlas Car & Mfg. Co., Cleveland, O.

Drawing Knives, Presses—
 (See Knives, Presses.)

Drawing Machinery, Wire—
 (See Draw Benches.)

Drawing Materials—
 Kenuff & Esser Co., 127 Fulton St., N. Y.

Dredging Machinery—
 Broderick & Bascom Rope Co., St. Louis, Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.

Interstate Engineering Co., Bedford, O.
 A. Leschen & Sons Rope Co., St. Louis.

Taylor Iron & Steel Co., High Bridge, N. J.

Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.

Wellman-Seaver-Morgan Co., Cleveland, O.

Dressers, Emery Wheel—
 Abrasive Material Co., Philadelphia, Pa.

American Emery Wheel Works, Providence, R. I.

Bignall & Keeler Mfg. Co., Edwardsville, Ill.

Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.

Builders' Iron Foundry, Providence, R. I.
 George H. Calder, Lancaster, Pa.

Chicago Screw Co., 2 No. Canal St., Chicago, Ill.

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Diamond Machine Co., Providence, R. I.
 Diamond Saw & Stamping Works, Buffalo, N. Y.

Est. of John Dickinson, 64 Nassau St., New York.

Thos. L. Dickinson, 45 Vesey St., N. Y.
 Hollands Mfg. Co., Erie, Pa.

Northampton Emery Wheel Co., Leeds, Mass.
Norton Emery Wheel Co., Worcester, Mass.
Standard Tool Co., Cleveland, O.
Star Corundum Wheel Co., Detroit, Mich.
Sterling Emery Wheel Mfg. Co., Tiffin, O.
Vitrified Wheel Co., Westfield, Mass.
Zucker & Levett & Loeb Co., 525-530 W. 25th St., New York.

Dressers, Plumbers'—

E. B. Estes & Sons, 45-47 John St., N. Y.

Dressers, Pneumatic Stone—

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Dressing, Belt—

(See Belt Dressing.)

Dressing, Razor Strop—

Pritchard-Strong Co., Rochester, N. Y.

Dressing, Rope—

Broderick & Bascom Rope Co., St. Louis.
Vodce Mfg. Co., Mishawaka, Ind.
C. W. Hunt Co., West New Brighton, N. Y.

A. Lechen & Sons Rope Co., St. Louis.
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Dried Fruit Augers—

(See Augers, Dried Fruit.)

Drill and Clamp, Combined—

(See Clamp and Drill, Combined.)

Drill, Anvil and Vise—

(See Vise, Drill and Anvil.)

Drill Attachments, Vise—

Prottiss Vise Co., 44 Barclay St., N. Y.

Drill Cases, Chucks, &c.—

(See Cases, Chucks, &c.)

Drill, Fertilizer, Hand—

Bateman Mfg. Co., Grenloch, N. J.

Drill Grinding Machines, Butt—

(See Milling and Drilling Machines.)

Drill Grinding Machines, Twist—

(See Grinders, Drill.)

Drill Sockets—

(See Sockets, Drill.)

Drilling and Tapping Machines—

American Tool Works Co., Cincinnati, O.
Rickford Drill & Tool Co., Cincinnati, O.
Cincinnati Machine Tool Co., Cincinnati, O.
Dreses Machine Tool Co., Cincinnati, O.
Fitchburg Machine Works, Fitchburg, Mass.

Wm. Gardam & Son, Inc., 45-51 Rose St., New York.

Garvin Machine Co., Spring and Varick Sts., New York.

Gem Mfg. Co., Pittsburgh, Pa.

Gould & Eberhardt, Newark, N. J.

C. E. Jennings & Co., 42 Murray St., New York.

National Machine Co., Hartford, Ct.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.

J. H. Dawson Machinery Co., 39-41 So. Canal St., Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.

Marshall & Huchart Machinery Co., 63 S. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co., Cleveland, O.

H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.

Vandyck-Churchill Co., 3 Day St., N. Y.

O. C. Wormer Machinery Co., Detroit, Mich.

Drilling Machines—

American Tool Works Co., Cincinnati, O.

R. Barnes Co., Rockford, Ill.

W. F. & John Barnes Co., Rockford, Ill.

Baum Machine Tool Co., Springfield, Mass.

Rickford Drill & Tool Co., Cincinnati, O.

Birch & Birch, Crawfordsville, Ind.

Blake & Johnson, Waterbury, Ct.

Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.

Boymont & Plummer, Worcester, Mass.

Buffalo Forge Co., Buffalo, N. Y.

Bullard Machine Tool Co., Bridgeport, Ct.

Champion Blower & Forge Co., Lancaster, Pa.

Cincinnati Machine Tool Co., Cincinnati, O.

Jas. Clark, Jr., & Co., Louisville, Ky.

W. P. Davis Mach. Co., Rochester, N. Y.

Detrick & Harvey Machine Co., Baltimore, Md.

Dreses Machine Tool Co., Cincinnati, O.

Espen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.

Fitchburg Machine Works, Fitchburg, Mass.

Footes, Burt & Co., Cleveland, O.

Fox Machine Co., Grand Rapids, Mich.

Wm. Gardam & Son, Inc., 45-51 Rose St., New York.

Garvin Machine Co., Spring and Varick Sts., New York.

Gem Mfg. Co., Pittsburgh, Pa.

Gould & Eberhardt, Newark, N. J.

E. Harrington, Son & Co. (Inc.), Philadelphia, Pa.

Henry & Wright Mfg. Co., Hartford, Ct.

Hisey-Wolf Machine Co., Cincinnati, O.

Hoefler Mfg. Co., Freeport, Ill.

J. J. McCabe, 14 Day St., New York.

Manning, Maxwell & Moore, 85 Liberty St., New York.

Mechanics Machine Co., Rockford, Ill.

Millers Falls Co., 28 Warren St., N. Y.

National Machine Co., Hartford, Ct.

New Haven Mfg. Co., New Haven, Ct.

Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pawling & Harnischfeger, Milwaukee, Wis.

Pratt & Whitney Co., Hartford, Ct.

A. D. Quint, Hartford, Ct.

F. E. Reed & Co., Worcester, Mass.

Francis Reed Co., Worcester, Mass.

Royersford Foundry & Machine Co., Royersford, Pa.

D. Saunders' Sons, Yonkers, N. Y.

Wm. Sellers & Co. (Inc.), Philadelphia.

F. B. Shuster Co., New Haven, Ct.

Sibley Machine Tool Co., South Bend, Ind.

Silver Mfg. Co., Salem, O.

Dwight Slate Machine Co., Hartford, Ct.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Vanderbeck Tool Works, Hartford, Ct.

Washburn Shops, Worcester, Mass.
 Wells Bros. & Co., Greenfield, Mass.
 Whitcomb-Blaisdell Machine Tool Co.,
 Worcester, Mass.
 Wiley & Russell Mfg. Co., Greenfield,
 Mass.

MERCHANTS.

Geo. E. Affleck, 109 Liberty St., N. Y.
 Baird Machinery Co., Pittsburgh, Pa.
 Carlin Machinery & Supply Co., Inc.,
 Allegheny, Pa.
 Columbus Equipment Co., Columbus, O.
 J. H. Dawson Machinery Co., 39 S.
 Canal St., Chicago, Ill.
 Fairbanks Co., 416 Broome St., New York.
 Frevert Machinery Co., 18 Dey St., New
 York.

Hannan & Finton, Springfield, Mass.
 Hill, Clarke & Co., Boston, Mass.
 Hub Machine & Tool Co., 621-623 Cherry
 St., Philadelphia, Pa.
 Huntington Machinery & Supply Co.,
 Wilkes-Barre, Pa.
 Marshall & Husechart Machinery Co., 62-
 64 So. Canal St., Chicago, Ill.
 McDowell, Stocker & Co., 59 S. Canal
 St., Chicago, Ill.
 Motch and Merryweather Machinery Co.,
 Cleveland, O.
 New York Machinery Depot, 120 Broad-
 way, New York.
 Prentiss Tool & Supply Co., 115 Liberty
 St., New York.
 H. A. Rogers Co., 19 John St., New York.
 L. F. Seyfert's Sons, 437-441 N. 3d St.,
 Philadelphia, Pa.
 H. A. Stocker Machinery Co., 20 S. Clin-
 ton St., Chicago, Ill.
 Thornton Machinery Co., Providence,
 R. I.
 Frank Toomey, 127-131 No. 3d St., Phila-
 delphia, Pa.
 Vandyck-Churchill Co., 8 Dey St., N. Y.
 William Ward, Pittsburgh, Pa.
 Wickes Bros., Saginaw, Mich.
 C. C. Wormer Machinery Co., Detroit,
 Mich.

Drilling Machines, Bicycle

Hub—
 Fox Machine Co., Grand Rapids, Mich.
 Pratt & Whitney Co., Hartford, Ct.

Drilling Machines, Bicycle

Rim—
 Fox Machine Co., Grand Rapids, Mich.
 Garvin Machine Co., Spring and Varick
 Sts., New York.

Drilling Machines, Connect-

ing Rod—
 Niles-Bement-Pond Co., 111 Broadway,
 New York.

Drilling Machines, Double

Head Traverse—
 Pratt & Whitney Co., Hartford, Ct.

Drilling Machines, Gun

Barrel—
 Diamond Machine Co., Providence, R. I.
 Pratt & Whitney Co., Hartford, Ct.

Drilling Machines, Spindle—

Pratt & Whitney Co., Hartford, Ct.
 F. B. Reed & Co., Worcester, Mass.
 Whitcomb-Blaisdell Machine Tool Co.,
 Worcester, Mass.

Drilling Machines, Turret—

A. D. Quint, Hartford, Ct.
 Francis Reed Co., Worcester, Mass.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.
 Marshall & Husechart Machinery Co., 62
 S. Canal St., Chicago, Ill.
 Motch & Merryweather Machinery Co.,
 Cleveland, O.
 C. C. Wormer Machinery Co., Detroit,
 Mich.

Drilling Machines, Uni-

versal, Horizontal—
 Detrick & Harvey Machine Co., Balti-
 more, Md.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.

Drills—

(See Taps and Drills.)

Drills, Adjustable Multiple—

Wm. Gardam & Son, Inc., 45-51 Rose St.,
 New York.
 Pratt & Whitney Co., Hartford, Ct.

Drills and Screw Drivers,

Combined—
 H. Mueller Mfg. Co., Decatur, Ill.

Drills, Arch Bar—

Footo, Burt & Co., Cleveland, O.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.

Drills, Automatic—

Footo, Burt & Co., Cleveland, O.
 Wm. Gardam & Son, Inc., 45-51 Rose St.,
 New York.

Goodell-Pratt Co., Greenfield, Mass.
 Gould & Eberhardt, Newark, N. J.
 Millers Falls Co., 28 Warren St., N. Y.

North Bros. Mfg. Co., Philadelphia, Pa.
 Francis Reed Co., Worcester, Mass.

Sibley Machine Tool Co., South Bend,
 Ind.

Dwight Slate Machine Co., Hartford, Ct.

Drills, Bench—

B. F. Barnes Co., Rockford, Ill.
 Boynton & Plummer, Worcester, Mass.

Jas. Clark, Jr., & Co., Louisville, Ky.
 Footo, Burt & Co., Cleveland, O.

Wm. Gardam & Son, Inc., 45-51 Rose St.,
 New York.

Garvin Machine Co., Spring & Varick Sts.,
 New York.

Goodell-Pratt Co., Greenfield, Mass.

Millers Falls Co., 28 Warren St., N. Y.

Mutual Mfg. Co., Bridgeport, Ct.

National Machine Co., Hartford, Ct.

Pratt & Whitney Co., Hartford, Ct.

Francis Reed Co., Worcester, Mass.

Signonney Tool Co., Hartford, Ct.

Dwight Slate Machine Co., Hartford, Ct.

Drills, Bicycle—

American Tool Works Co., Cincinnati, O.

W. F. & John Barnes Co., Rockford, Ill.

Bickford Drill & Tool Co., Cincinnati, O.

Fox Machine Co., Grand Rapids, Mich.

Garvin Machine Co., Spring & Varick Sts.,
 New York.

Pratt & Whitney Co., Hartford, Ct.

Stow Flexible Shaft Co., 26th and Callow-
 hill Sts., Philadelphia, Pa.

Whitcomb-Blaisdell Machine Tool Co.,
 Worcester, Mass.

Drills, Bit Stock—

Cleveland Twist Drill Co., Cleveland, O.

Drills, Blacksmiths—

Boynton & Plummer, Worcester, Mass.
 Buffalo Forge Co., Buffalo, N. Y.
 Champion Blower & Forge Co., Lancaster, Pa.
 Fairbanks Co., 416 Broome St., New York.
 Kilborn & Bishop Co., New Haven, Ct.
 Morse Twist Drill & Machine Co., New Bedford, Mass.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Plunger & Henger Mfg. Co., St. Louis, Mo.
 Francis Reed Co., Worcester, Mass.
 Silver Mfg. Co., Salem, O.
 Wells Bros. Co., Greenfield, Mass.
 Whitman & Barnes Mfg. Co., Chicago.
 Wiley & Russell Mfg. Co., Greenfield, Mass.

Drills, Boiler Shell—

American Tool Works Co., Cincinnati, O.
 Detrick & Harvey Machine Co., Baltimore, Md.
 Foote, Burr & Co., Cleveland, O.
 Ingersoll-Rand Co., 11 Broadway, New York.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Drills, Breast—

Boynton & Plummer, Worcester, Mass.
 Jas. Clark, Jr. & Co., Louisville, Ky.
 Fairbanks Co., 416 Broome St., New York.
 John S. Fray & Co., Bridgeport, Ct.
 Gem Mfg. Co., Pittsburgh, Pa.
 Goodell-Pratt Co., Greenfield, Mass.
 Hisey-Wolf Machine Co., Cincinnati, O.
 Millers Falls Co., 28 Warren St., N. Y.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Stow Flexible Shaft Co., 26th & Callow-hill Sts., Philadelphia, Pa.

Drills, Brick and Cement—

Diamond Expansion Bolt Co., 9-15 Murray St., New York.
 Kilborn & Bishop Co., New Haven, Ct.
 Star Extension Bolt Co., 137 Cedar St., New York.
 Steward & Romaine Mfg. Co., Philadelphia, Pa.

Drills, Chain—

Goodell-Pratt Co., Greenfield, Mass.

Drills, Clamp—

Boynton & Plummer, Worcester, Mass.
 Francis Reed Co., Worcester, Mass.
 Stow Flexible Shaft Co., 26th & Callow-hill Sts., Philadelphia, Pa.

Drills, Combination Center—

Morse Twist Drill & Machine Co., New Bedford, Mass.
 J. T. Slocomb Co., Providence, R. I.

Drills, Combined Seed and Fertilizer—

Bateman Mfg. Co., Grenloch, N. J.

Drills, Combined Seed and Plow—

Cutaway Harrow Co., Higganum, Ct.

Drills, Core, Rock—

Ingersoll-Rand Co., 11 Broadway, New York.

Drills, Corn—

(See Planters and Drills, Corn.)

Drills, Cotton—

Niles-Bement-Pond Co., 111 Broadway, New York.

Drills, Electric Driven—

American Tool Works Co., Cincinnati, O.
 Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
 Wm. Gardam & Son, Inc., 45-51 Rose St., New York.
 General Electric Co., Schenectady, N. Y.
 Hisey-Wolf Machine Co., Cincinnati, O.
 Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.
 Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Electrical Mfg. Co., Madison, Wis.

Drills, Flat—

Billings & Spencer Co., Hartford, Ct.

Drills, Fluted—

American Die & Tool Co., Reading, Pa.
 Cleveland Twist Drill Co., Cleveland, O.
 Morse Twist Drill & Machine Co., New Bedford, Mass.
 Standard Tool Co., Cleveland, O.
 Whitman & Barnes Mfg. Co., Chicago.
 Wiley & Russell Mfg. Co., Greenfield, Mass.

Drills, Geared—

Niles-Bement-Pond Co., 111 Broadway, New York.

Drills, Geometric—

Geometric Tool Co., New Haven, Ct.

Drills, Glass—

Est. of John Dickinson, 64 Nassau St., New York.

Drills, Hand—

Boynton & Plummer, Worcester, Mass.
 Jas. Clark, Jr. & Co., Louisville, Ky.
 John S. Fray & Co., Bridgeport, Ct.
 Gem Mfg. Co., Pittsburgh, Pa.
 Goodell-Pratt Co., Greenfield, Mass.
 Hisey-Wolf Machine Co., Cincinnati, O.
 C. E. Jennings & Co., 42 Murray St., New York.
 Keystone Mfg. Co., Buffalo, N. Y.
 Millers Falls Co., 28 Warren St., N. Y.
 North Bros. Mfg. Co., American St. and Lehigh Ave., Philadelphia, Pa.
 Francis Reed Co., Worcester, Mass.
 Stow Flexible Shaft Co., 26th & Callow-hill Sts., Philadelphia, Pa.
 Tower & Lyon Co., 95 Chambers St., New York.
 Wiley & Russell Mfg. Co., Greenfield, Mass.

Drills, Hollow—

Cleveland Twist Drill Co., Cleveland, O.
 Morse Twist Drill & Machine Co., New Bedford, Mass.
 Standard Tool Co., Cleveland, O.

Drills, Horizontal—

B. F. Barnes Co., Rockford, Ill.
 Boynton & Plummer, Worcester, Mass.
 Detrick & Harvey Machine Co., Baltimore, Md.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Pawling & Harnischfeger, Milwaukee, Wis.
 Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.

Drills, Locomotive Frame—

American Tool Works Co., Cincinnati, O.
 Foote, Burt & Co., Cleveland, O.
 Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.
 Niles-Bement-Pond Co., 111 Broadway, New York.

Drills, Locomotive Mud

Ring and Flue Steel—
 Foote, Burt & Co., Cleveland, O.
 Niles-Bement-Pond Co., 111 Broadway, New York.

Drills, Marble—

F. R. Patch Mfg. Co., Rutland, Vt.

Drills, Mining—

Hubbard & Co., Pittsburgh, Pa.
Drills, Multiple—
 American Tool Works Co., Cincinnati, O.
 B. F. Barnes Co., Rockford, Ill.
 W. F. & John Barnes Co., Rockford, Ill.
 Baush Machine Tool Co., Springfield, Mass.
 Bickford Drill & Tool Co., Cincinnati, O.
 Jas. Clark, Jr. & Co., Louisville, Ky.
 Foote, Burt & Co., Cleveland, O.
 Fox Machine Co., Grand Rapids, Mich.
 Wm. Gardam & Son, Inc., 45-51 Rose St., New York.
 Garvin Machine Co., Spring & Varick Sts., New York.
 Gould & Eberhardt, Newark, N. J.
 E. Harrington, Son & Co. (Inc.), Philadelphia, Pa.
 Henry & Wright Mfg. Co., Hartford, Ct.
 Hoefer Mfg. Co., Freeport, Ill.
 National Machine Co., Hartford, Ct.
 Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Pratt & Whitney Co., Hartford, Ct.
 Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
 Francis Reed Co., Worcester, Mass.
 Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
 F. B. Shuster Co., Hartford, Ct.
 Sigourney Tool Co., Hartford, Ct.
 Dwight Slate Machine Co., Hartford, Ct.
 Vanderbeek Tool Works, Hartford, Ct.
 Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
 J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 Fairbanks Co., 416 Broome St., New York.
 Frevert Machinery Co., 18 Dey St., New York.
 Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.
 W. C. Johnson & Sons Machinery Co., St. Louis, Mo.
 Marshall & Huchart Machinery Co., 62 S. Canal St., Chicago, Ill.
 Motch & Merryweather Machinery Co., Cleveland, O.

Wickes Bros., Saginaw, Mich.
 C. C. Wormer Machinery Co., Detroit, Mich.

Drills, Musher Twist—

Samuel Osborn & Co., Boston, Mass.

Drills, Oil—

Morse Twist Drill & Machine Co., New Bedford, Mass.

Whitman & Barnes Mfg. Co., Chicago.

Drills, Oil Tube—

Standard Tool Co., Cleveland, O.

Drills, Pneumatic—

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Helwig Mfg. Co., St. Paul, Minn.

Ingersoll-Rand Co., 11 Broadway, New York.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

MERCHANTS.

S. Obermayer Co., Cincinnati, O.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and

Wayman Sts., Chicago, Ill.

Drills, Portable—

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Jas. Clark, Jr. & Co., Louisville, Ky.

Gem Mfg. Co., Pittsburgh, Pa.

Helwig Mfg. Co., St. Paul, Minn.

Husey-Wolf Machine Co., Cincinnati, O.

Ingersoll-Rand Co., 11 Broadway, New York.

Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Francis Reed Co., Worcester, Mass.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Stow Mfg. Co., Binghamton, N. Y.

United States Electric Tool Co., Cincinnati, O.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.

J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.

Frevert Machinery Co., 18 Dey St., New York.

Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.

Marshall & Huchart Machinery Co., 62 S. Canal St., Chicago, Ill.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and

Wayman Sts., Chicago, Ill.

Vandyck-Churchill Co., 8 Dey St., N. Y.

C. C. Wormer Machinery Co., Detroit, Mich.

Drills, Portable, Electric—

United States Electric Tool Co., Cincinnati, O.

Drills, Post—

Boynton & Plummer, Worcester, Mass.

Champion Blower & Forge Co., Lancaster, Pa.

E. Harrington, Son & Co. (Inc.), Philadelphia, Pa.

Francis Reed Co., Worcester, Mass.

Wells Bros. Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Drills, Radial—

American Tool Works Co., Cincinnati, O.
Baush Machine Tool Co., Springfield, Mass.
Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.
Jas. Clark, Jr., & Co., Louisville, Ky.
Detrick & Harvey Machine Co., Baltimore, Md.
Dreses Machine Tool Co., Cincinnati, O.
E. Harrington, Son & Co. (Inc.), Philadelphia, Pa.
Manning, Maxwell & Moore, 85 Liberty St., New York.
J. J. McCabe, 14 Dey St., New York.
Niles-Bement-Pond Co., 111 Broadway, New York.
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

MERCHANTS.

Geo. E. Affleck, 109 Liberty St., N. Y.
Baird Machinery Co., Pittsburgh, Pa.
Columbus Equipment Co., Columbus, O.
J. H. Dawson Machinery Co., 29 S. Canal St., Chicago, Ill.
Fairbanks Co., 416 Broome St., New York.
Frevort Machinery Co., 18 Dey St., New York.
Hill, Clarke & Co., Boston, Mass.
Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.
Marshall & Huchart Machinery Co., 62-64 So. Canal St., Chicago, Ill.
McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.
Motch & Merryweather Machinery Co., Cleveland, O.
New York Machinery Depot, 120 Broadway, New York.
Prentiss Tool & Supply Co., 115 Liberty St., New York.
Joseph T. Ryerson & Son, 13-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
Thornton Machinery Co., Providence, R. I.
Jacob Ullman, Buffalo, N. Y.
Vandyck-Churchill Co., 8 Dey St., N. Y.
William Ward, Pittsburgh, Pa.
Wickes Bros., Saginaw, Mich.
C. C. Wormer Machinery Co., Detroit, Mich.

Drills, Rail—

Boynton & Plummer, Worcester, Mass.
Epsen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.
Foote, Burt & Co., Cleveland, O.
Wm. Gardam & Son, Inc., 45-51 Rose St., New York.
Ingersoll-Rand Co., 11 Broadway, New York.
Millers Falls Co., 28 Warren St., N. Y.
Niles-Bement-Pond Co., 111 Broadway, New York.
Francis Reed Co., Worcester, Mass.
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
Sheffield Car Co., Three Rivers, Mich.
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
Stow Mfg. Co., Binghamton, N. Y.

Drills, Ratchet—

Bignall & Keeler Mfg. Co., Edwardsville, Ill.
Billings & Spencer Co., Hartford, Ct.
Curtis & Curtis Co., Bridgeport, Ct.

Goodell-Pratt Co., Greenfield, Mass.
Keystone Mfg. Co., Buffalo, N. Y.
Kilborn & Bishop Co., New Haven, Ct.
Lincoln-Williams Twist Drill Co., Taunton, Mass.
Millers Falls Co., 28 Warren St., N. Y.
Morse Twist Drill & Machine Co., New Bedford, Mass.
H. Mueller Mfg. Co., Decatur, Ill.
Charles Parker Co., Meriden, Ct.
J. E. Porter Co., Ottawa, Ill.
Pratt & Whitney Co., Hartford, Ct.
Standard Tool Co., Cleveland, O.
Whitman & Barnes Mfg. Co., Chicago, Ill.

Drills, Reamers and Taps, Combined—

H. Mueller Mfg. Co., Decatur, Ill.

Drills, Reciprocating—

Goodell-Pratt Co., Greenfield, Mass.

Drills, Rock—

Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.
Jeffrey Mfg. Co., Columbus, O.
John M. Rogers Boat Gauge & Drill Works, Gloucester City, N. J.
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
Wickes Bros., Saginaw, Mich.

MERCHANTS.

Thomas P. Conard & Co., 119 S. 4th St., Philadelphia, Pa.
Marshall & Huchart Machinery Co., 62 S. Canal St., Chicago, Ill.
McDowell & Co., Allegheny, Pa.
C. C. Wormer Machinery Co., Detroit, Mich.

Drills, Seed, Hand—

Bateman Mfg. Co., Grenloch, N. J.

Drills, Sensitive—

American Tool Works Co., Cincinnati, O.
B. F. Barnes Co., Rockford, Ill.
W. F. & John Barnes Co., Rockford, Ill.
Jas. Clark, Jr., & Co., Louisville, Ky.
W. P. Davis Machine Co., Rochester, N. Y.
Foote, Burt & Co., Cleveland, O.
Fox Machine Co., Grand Rapids, Mich.
Wm. Gardam & Son Co., Inc., 45-51 Rose St., New York.
Garvin Machine Co., Spring & Varick Sts., New York.
E. Harrington, Son & Co. (Inc.), Philadelphia, Pa.
Henry & Wright Mfg. Co., Hartford, Ct.
National Machine Co., Hartford, Ct.
Niles-Bement-Pond Co., 111 Broadway, New York.
Pratt & Whitney Co., Hartford, Ct.
Francis Reed Co., Worcester, Mass.
Sigourney Tool Co., Hartford, Ct.
Dwight Slate Machine Co., Hartford, Ct.
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
Vanderbeek Tool Works, Hartford, Ct.
Washburn Shops, Worcester, Mass.

MERCHANTS.

George E. Affleck, 107 Liberty St., N. Y.
J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
Fairbanks Co., 416 Broome St., New York.

Freyert Machinery Co., 18 Dey St., New York.

Hill, Clarke & Co., Boston, Mass.

Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

Thornton Machinery Co., Providence, R. I.

Vandyck-Churchill Co., 8 Dey St., N. Y.

C. C. Wormer Machinery Co., Detroit, Mich.

Drills, Star—

Kilborn & Bishop Co., New Haven, Ct.

Drills, Stone—

Diamond Expansion Bolt Co., 11 Broadway, New York.

Kilborn & Bishop Co., New Haven, Ct.

Star Expansion Bolt Co., 147 Cedar St., New York.

Drills, Submarine—

Ingersoll-Rand Co., 11 Broadway, New York.

Drills, Suspension—

Bickford Drill & Tool Co., Cincinnati, O.

Birch & Birch, Crawfordville, Ind.

Niles-Bement-Pond Co., 111 Broadway, New York.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Drills, Tap—

Butterfield & Co., Derby Line, Vt.

Goodell-Pratt Co., Greenfield, Mass.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Standard Tool Co., Cleveland, O.

Drills, Tire—

Francis Reed Co., Worcester, Mass.

Peugler & Henger Mfg. Co., St. Louis, Mo.

Drills, Turret—

Niles-Bement-Pond Co., 111 Broadway, New York.

A. D. Quint, Hartford, Ct.

Vanderbeek Tool Works, Hartford, Ct.

Drills, Twist—

Cleveland Twist Drill Co., Cleveland, O.

Goodell-Pratt Co., Greenfield, Mass.

Lincoln-Williams Twist Drill Co., Taunton, Mass.

H. H. Mayhew Co., Shelburne Falls, Mass.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Samuel Osborn & Co., Boston, Mass.

F. R. Phillips & Son Co., Pennsylvania Bldg., Philadelphia, Pa.

Pratt & Whitney Co., Hartford, Ct.

Standard Tool Co., Cleveland, O.

Whitman & Barnes Mfg. Co., Chicago, Ill.

Drills, Universal—

American Tool Works Co., Cincinnati, O.

Bausch Machine Tool Co., Springfield, Mass.

Rickford Drill & Tool Co., Cincinnati, O.

O. Detrick & Harvey Machine Co., Baltimore, Md.

Dresses Machine Tool Co., Cincinnati, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

Wm. Sellers & Co. (Inc.), Philadelphia.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Drills, Universally Adjustable—

Foot, Burt & Co., Cleveland, O.

Drills, Vertical—

American Tool Works Co., Cincinnati, O.

B. F. Barnes Co., Rockford, Ill.

Boydton & Plummer, Worcester, Mass.

Champion Blower & Forge Co., Lancaster, Pa.

Cincinnati Machine Tool Co., Cincinnati, O.

W. P. Davis Machine Co., Rochester, N. Y.

Foot, Burt & Co., Cleveland, O.

Fox Machine Co., Grand Rapids, Mich.

Wm. Gardam & Son, Inc., 45-51 Rose St., New York.

Gould & Eberhardt, Newark, N. J.

Henry & Wright Mfg. Co., Hartford, Ct.

Hoefler Mfg. Co., Freeport, Ill.

J. J. McCabe, 14 Dey St., New York.

Mechanics Machine Co., Rockford, Ill.

National Machine Co., Hartford, Ct.

Niles-Bement-Pond Co., 111 Broadway, New York.

Francis Reed Co., Worcester, Mass.

Sibley Machine Tool Co., South Bend, Ind.

Vanderbeek Tool Works, Hartford, Ct.

Washburn Shops, Worcester, Mass.

Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.

Freyert Machinery Co., 18 Dey St., New York.

Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.

Marshall & Huchart Machinery Co., 62 S. Canal St., Chicago, Ill.

Match & Merryweather Machinery Co., Cleveland, O.

Vandyck-Churchill Co., 8 Dey St., N. Y.

C. C. Wormer Machinery Co., Detroit, Mich.

Drills, Wheel Car—

Niles-Bement-Pond Co., 111 Broadway, New York.

Drills, Wood Boring Brace—

Cleveland Twist Drill Co., Cleveland, O.

Forest City Bit & Tool Co., Rockford, Ill.

Greenlee Bros. & Co., Rockford, Ill.

H. H. Mayhew Co., Shelburne Falls, Mass.

Standard Tool Co., Cleveland, O.

Whitman & Barnes Mfg. Co., Chicago, Ill.

Drills, Wood Boring Machine—

Forest City Bit & Tool Co., Rockford, Ill.

Hisey-Wolf Machine Co., Cincinnati, O.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Drink Shakers—

(See Shakers, Drink.)

Drinking Fountains—

(See Fountains, Drinking.)

Dripping Pans—

(See Pans, Dripping.)

Drive Hooks, Punches, Screws—

(See Hooks, Punches, Screws.)

Drivers, Coopers—

L. & I. J. White Co., Buffalo, N. Y.

Drivers, Coopers' Hoop—

Sandusky Tool Co., Sandusky, O.

Vaughan & Bushnell Mfg. Co., Chicago, Ill.

Drivers, Drift Bolt—

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Drivers, Pile—

Thos. Carlin's Sons, Allegheny, Pa.
Industrial Works, Bay City, Mich.
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
New Jersey Foundry & Machine Co., 9-15
Murray St., New York.
Vulcan Iron Works, 59 Milwaukee Ave.,
Chicago, Ill.

Drivers, Pile, Pneumatic—

Ingersoll-Rand Co., 11 Broadway, New
York.

Drivers, Pile, Railroad—

Industrial Works, Bay City, Mich.
Interstate Engineering Co., Bedford, O.

Drivers, Pile, Steam—

Vulcan Iron Works, 59 Milwaukee Ave.,
Chicago, Ill.

Drivers, Screw—

Billings & Spencer Co., Hartford, Ct.
Bridgeport Hardware Mfg. Co., Bridge-
port, Ct.

R. H. Brown & Co., New Haven, Ct.
Charles Buck Edge Tool Co., Millbury,
Mass.

Buck Bros., Millbury, Mass.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Henry Diston & Sons, Philadelphia, Pa.

Ducharme & Co., Shelburne Falls, Mass.

Ford Auger Bit Co., Holyoke, Mass.

Goodell-Pratt Co., Greenfield, Mass.

Kilborn & Bishop Co., New Haven, Ct.

C. J. Kimball Co., Bennington, N. H.

H. H. Mayhew Co., Shelburne Falls,
Mass.

Millers Falls Co., 28 Warren St., N. Y.

New England Specialty Co., North East-
on, Mass.

North Bros. Mfg. Co., American St. and
Lehigh Ave., Philadelphia, Pa.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Russell & Erwin Mfg. Co., 43-47 Chambers
St., New York.

Schreiber & Couchar Mfg. Co., Dubuque,
Ia.

Smith & Hemenway Co., 108-110 Duane
St., New York.

Snell Mfg. Co., Fiskdale, Mass.

Stanley Rule & Level Co., New Brit-
ain, Ct.

L. S. Starrett Co., Athol, Mass.

Tower & Lyon Co., 95 Chambers St.,
New York.

Tuck Mfg. Co., Brockton, Mass.

Vanderbeek Tool Works, Hartford, Ct.

Whitman & Barnes Mfg. Co., Chicago.

A. C. Williams, Ravenna, O.

Drivers, Screw and Holder—

Tower & Lyon Co., 95 Chambers St.,
New York.

Drivers, Screw, Automatic—

Goodell-Pratt Co., Greenfield, Mass.

Grant Mfg. & Machine Co., Bridgeport,
Ct.

Millers Falls Co., 28 Warren St., N. Y.

H. Mueller Mfg. Co., Decatur, Ill.

North Bros. Mfg. Co., Philadelphia, Pa.

Drivers, Screw, Combina-

tion—
H. Mueller Mfg. Co., Decatur, Ill.

Vanderbeek Tool Works, Hartford, Ct.

Drivers, Screw, Magazine—

Billings & Spencer Co., Hartford, Ct.

**Drivers, Screw, Portable
Power—**

Grant Mfg. & Machine Co., Bridgeport,
Ct.

Drivers, Screw, Ratchet—

Geo. E. Gay, Augusta, Me.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., 28 Warren St., N. Y.
North Bros. Mfg. Co., Philadelphia, Pa.
Stow Flexible Shaft Co., 26th & Callow-
hill Sts., Philadelphia, Pa.

Drivers, Screw, Spiral—

Goodell-Pratt Co., Greenfield, Mass.
C. E. Jennings & Co., 42 Murray St.,
New York.

Millers Falls Co., 28 Warren St., N. Y.
H. Mueller Mfg. Co., Decatur, Ill.

North Bros. Mfg. Co., Philadelphia, Pa.

Drivers, Staple—

I. S. Spencer's Sons, Guilford, Ct.

Drop Lights, Gas—

(See Gas Portables.)

Drosses, Metal—

General Smelting Co., 38 Wall St., New
York.

Drug Mills—

(See Mills, Drug.)

Drugs—

(See Chemicals and Drugs.)

Drums, Botanizing—

Republic Metalware Co., Buffalo, N. Y.

Drums, Friction Winding—

Eastern Machinery Co., New Haven, Ct.

Poole Engineering & Machine Co., Balti-
more, Md.

Drums, Oil, Steel—

Cleveland Wire Spring Co., Cleveland, O.

Wm. B. Scaife & Sons Co., Pittsburgh.

Drumsticks—

E. B. Estes & Sons, 45-47 John St., N. Y.

Dry Docks—

Newport News Ship Building & Dry Dock
Co., Newport News, Va.

Dry Kiln Appurtenances—

American Blower Co., Detroit, Mich.
Boston Blower Co., Hyde Park, Mass.

Buffalo Forge Co., Buffalo, N. Y.

Howard & Morse, 45 Fulton St., N. Y.

Humphrey Machine Co., Keene, N. H.

Soule Steam Feed Works, Meridian, Miss.

B. F. Sturtevant Co., Boston, Mass.

Dry Measures—

(See Measures.)

Dryers, Board—

Geo. P. Clark Co., Windsor Locks, Ont.

Dryers, Brick—

American Blower Co., Detroit, Mich.

Buffalo Forge Co., Buffalo, N. Y.

B. F. Sturtevant Co., Hyde Park, Mass.

Dryers, Cement—

Curtin-Ruggles Co., 39 Cortlandt St.,
New York.

Dryers, Cloth and Cotton—

American Blower Co., Detroit, Mich.

Buffalo Forge Co., Buffalo, N. Y.

B. F. Sturtevant Co., Boston, Mass.

Dryers, Clothes—

Hill Dryer Co., Worcester, Mass.

Dryers, Coal—

C. O. Bartlett & Snow Co., Cleveland, O.

Curtin-Ruggles Co., 39 Cortlandt St.,
New York.

Dryers, Corn—

Case Mfg. Co., Columbus, O.

Dryers, Grain—

American Blower Co., Detroit, Mich.
C. O. Bartlett & Snow Co., Cleveland, O.
Buffalo Forge Co., Buffalo, N. Y.
Case Mfg. Co., Columbus, O.
Curtin-Ruggles Co., 39 Cortlandt St., New York.

B. F. Sturtevant Co., Boston, Mass.

Dryers, Leather—

American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
B. F. Sturtevant Co., Hyde Park, Mass.

Dryers, Lumber—

American Blower Co., Detroit, Mich.
B. F. Sturtevant Co., Hyde Park, Mass.

Dryers, Sand—

Curtin-Ruggles Co., 39 Cortlandt St., New York.

Dryers, Slag—

Curtin-Ruggles Co., 39 Cortlandt St., New York.

Dryers, Soapstone, Boot—

American Blower Co., Detroit, Mich.
Pike Mfg. Co., Pike, N. H.
B. F. Sturtevant Co., Hyde Park, Mass.

Drying Out Machines, Sheet Metal—

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Drying Pans—

(See Pans, Drying.)

D's, Malleable—

Avery Stamping Co., Cleveland, O.

Ducks, Decoy—

E. B. Estes & Sons, 45-47 John St., N. Y.

Dumb Bells, Waiters—

(See Bells, Waiters.)

Dumb Water Pulleys—

(See Pulleys.)

Dumb Waiters—

(See Waiters, Dumb.)

Dumping Buckets, Self—

(See Buckets, Self Dumping.)

Dust Collectors, Pans—

(See Collectors, Pans.)

Dusters—

(See Brushes, Whitewash, Horse, &c.)

Dusters, Dynamo, Machine**Type, &c.—**

Smith & Hemenway Co., 108-110 Duane St., New York.

Dusters, Turkey, Counter, &c.—

Osborn Mfg. Co., Cleveland, O.

Dividers, Blackboard—

E. B. Estes & Sons, 45-47 John St., N. Y.

Dyeing Machines—

Geo. P. Clark Co., Windsor Locks, Ct.
Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.

Dynamometers—

Chas. Forchner & Sons, 206 E. 19th St., New York.

Dynamometers—

Manning, Maxwell & Moore, 85 Liberty St., New York.

Dynamos—

C. & C. Electric Co., Garwood, N. J.
Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.

Crocker-Wheeler Co., Ampere, N. J.
De Laval Steam Turbine Co., Trenton, N. J.

General Electric Co., Schenectady, N. Y.
Jeffrey Mfg. Co., Columbus, O.
A. Mietz, 128 Mott St., New York.

National Electric Co., Milwaukee, Wis.
Northern Electrical Mfg. Co., Madison, Wis.

Ridgway Dynamo & Engine Co., Ridgway, Pa.

Sheffield Car Co., Three Rivers, Mich.
Sprague Electric Co., 527 W. 34th St., New York.

B. F. Sturtevant Co., Boston, Mass.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

MERCHANTS

Charles Behlen, 72 Trinity Place, N. Y.
Case Mfg. Co., Columbus, O.

Chicago Edison Co., Edison Bldg., Chicago, Ill.

John W. Cole, Providence, R. I.
Charles E. Lustin Co., 11 Broadway, New York.

McDowell & Co., Allegheny, Pa.
Rossiter, MacGovern & Co., Inc., 141 Broadway, New York.

L. E. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.

Thompson-Sonney Co., Brooklyn, N. Y.
Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

Jacob Ullman, Buffalo, N. Y.
Walsh's Sons & Co., Newark, N. J.

Wickes Bros., Saginaw, Mich.
Yearaley & Levene, 305 N. 3d St., Philadelphia, Pa.

Dynamos, Electro Plating—

Jas. Clark, Jr., & Co., Louisville, Ky.
Hanson & Van Winkle Co., Newark, N. J.

U. S. Electro-Galvanizing Co., Brooklyn, N. Y.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Zucker & Levett & Loeb Co., 526-530 West 25th St., New York.

Eagles—

(See Statuary, Sheet Metal.)

Ears, Brass, Pail—

Bridgeport Brass Co., 233 B'way, N. Y.
Waterbury Brass Co., Waterbury, Ct.

Ears, Pail and Tub—

E. H. Fitchener & Co., Binghamton, N. Y.

Easels, Wire—

(See Household Articles, Wire.)

Eave Trough Hangers—

(See Hangers, Eave Trough.)

Eave Troughs and Gutters—

American Sheet & Tin Plate Co., Pittsburgh, Pa.

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Berger Mfg. Co., Canton, O.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Edwards Mfg. Co., Cincinnati, O.

Garry Iron & Steel Co., Cleveland, O.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Reeves Mfg. Co., Canal Dover, O.

Economizers, Fuel—

Green Fuel Economizer Co., Matteawan, N. Y.

Parker Roller Co., Pennsylvania Bldg., Philadelphia, Pa.

Win. B. Scaife & Sons Co., Pittsburgh.

B. F. Sturtevant Co., Boston, Mass.

Edgers, Sidewalk—

(See Tools, Cement.)

Edgers, Turf—
American Fork & Hoe Co., Cleveland, O.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
F. E. Kohler & Co., Canton, O.
Potter Mfg. Co., Geneva, O.

Edges, Straight—
Athol Machine Co., Athol, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Henry Disston & Sons, Philadelphia, Pa.
Keuffel & Esser Co., 127 Fulton St., New York.

Massachusetts Tool Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Ct.
Simonds Mfg. Co., Fitchburg, Mass.
L. S. Starrett Co., Athol, Mass.

Edging Machines—
Blake & Johnson, Waterbury, Ct.
Garvin Machine Co., Spring and Varick Sts., New York.

Niagara Machine & Tool Works, Buffalo, N. Y.
Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
Wickes Bros., Saginaw, Mich.

Egg Beaters, Crates, Poachers, Separators—
(See Beaters, Crates, Poachers, Separators.)

Egg Boilers, Wire—
(See Kitchen Articles, Wire.)

Egg Openers—
W. R. Hartigan, Collinsville, Ct.
Taplin Mfg. Co., New Britain, Ct.

8 and S Hooks—
(See Hooks, 8 and S.)

Ejectors—
Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.
Fairbanks Co., 416 Broome St., New York
Hancock Inspirator Co., 85-89 Liberty St., New York

Lunkenheimer Co., Cincinnati, O.
Manning, Maxwell & Moore, 85 Liberty St., New York.

John H. McGowan Co., Cincinnati, O.
McNab & Harlin Mfg. Co., 56 John St., New York

Elbow Catches—
(See Catches, Elbow.)

Elbows and Shoes, Conductor—

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Berger Mfg. Co., Canton, O.
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Edwards Mfg. Co., Cincinnati, O.
Goff, Horner & Co., Ltd., Pittsburgh, Pa.
Arthur C. Harvey Co., Boston, Mass.
Reeves Mfg. Co., Canal Dover, O.
Waite, Ranlet & Co., Boston, Mass.

Elbows, Pipe, Conductor—
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Berger Mfg. Co., Canton, O.
Edwards Mfg. Co., Cincinnati, O.
Arthur C. Harvey Co., Boston, Mass.
Republic Metalware Co., Buffalo, N. Y.

Elbows, Stove Pipe—
Berger Mfg. Co., Canton, O.
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Edwards Mfg. Co., Cincinnati, O.
S. M. Howes Co., Boston, Mass.
Reeves Mfg. Co., Canal Dover, O.
Republic Metalware Co., Buffalo, N. Y.
Sturges & Burn Mfg. Co., Chicago, Ill.

Election Booths—
(See Buildings, Election Booth.)

Electric Batteries, Bells, &c.—
(See Batteries, Bells, &c.)

Electric Bells and Supplies—

W. R. Ostrander & Co., 22 Dey St., N. Y.

Electric Cut-Outs—
(See Switches and Cut-Outs.)

Electric Fixtures—
(See Gas and Electric Fixtures.)

Electric Light Fittings (Socket Bushings, Cord Adjusters, Socket Hooks, Lamp Attachments for Gas Fixtures)—

W. R. Ostrander & Co., 22 Dey St., N. Y.

Electric Light Guards—
(See Guards, Electric Light.)

Electric Storage Batteries—
(See Batteries, Electric Storage.)

Electric Woods—
Union Hardware Co., Torrington, Ct.

Electrical Alarms—
(See Alarms, Electrical.)

Electrical Repairs—
Jas. Clark, Jr. & Co., Louisville, Ky.

Electrical Trolley Materials—
(See Trolley Materials, Electrical.)

Electricians' Bits—
(See Bits, Bell Hangers' and Electricians'.)

Electro Galvanizing—
Ludlow-Saylor Wire Co., St. Louis, Mo.

Electro-Plating—
(See Plating, Electro.)

Electro Plating Brushes, Dynamos—
(See Brushes, Dynamos.)

Electro Plating Supplies—
Empire Metal Co., Syracuse, N. Y.
Hanson & Van Winkle Co., Newark, N. J.
Zucker & Levett & Leeb Co., 528-530 West 25th St., New York.

Electrotype Metal—
Theo. Hertz Metal Co., St. Louis, Mo.
Merchant & Evans Co., Philadelphia, Pa.
Pittsburgh White Metal Co., Pittsburgh, N. & G. Taylor Co., Chestnut and Third Sts., Philadelphia, Pa.

Electrotype Presses—
(See Presses, Electrotype.)

Electrotyping—
A. Mugford, Hartford, Ct.

St. Louis Electrotype Foundry, St. Louis.

Electrotyping Plumbago—
Joseph Dixon Crucible Co., Jersey City, N. J.

Elevating Machinery—
C. O. Bartlett & Snow Co., Cleveland, O.
Broderick & Bascom Rope Co., St. Louis.
Brown Hoisting Machinery Co., Cleveland.
Browning Engineering Co., Cleveland, O.
Buhl Malleable Co., Detroit, Mich.
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
Eastern Machinery Co., New Haven, Ct.
C. W. Hunt Co., West New Brighton, N. Y.

Interstate Engineering Co., Bedford, O.
 Jeffrey Mfg. Co., Columbus, O.
 A. Leschen & Sons Rope Co., St. Louis.
 Link-Belt Engineering Co., Nicetown,
 Philadelphia, Pa.
 New Jersey Foundry & Machine Co., 9-15
 Murray St., New York.
 Robins Conveying Belt Co., 17-22 Park
 Row, New York.
 J. G. Speidel, Reading, Pa.
 Storm Mfg. Co., Newark, N. J.
 Warsaw Elevator Co., Warsaw, N. Y.
 Wellman-Seaver-Morgan Co., Cleveland, O.

MERCHANTS

C. C. Wormer Machinery Co., Detroit,
 Mich.

Elevator Bolts, Buckets, &c.

(See Bolts, Buckets, &c.)

Elevator Bucket Attach- ments, to order—

W. J. Clark & Co., Salem, O.

Elevator Bucket Pumps—

(See Pumps, Elevator Bucket and Puri-
fying Pumps.)

Elevator Buckets and Cups—

(See Buckets and Cups, Elevator.)

Elevator Counter Balance

Weights—

(See Weights.)

Elevator Enclosures—

Buffalo Wire Works Co., Buffalo, N. Y.
 Chesapeake Iron Works, Baltimore, Md.
 Clinton Wire Cloth Co., Clinton, Mass.
 Edward Darby & Sons, 233-235 Arch St.,
 Philadelphia, Pa.
 Eastern Machinery Co., New Haven, Ct.
 Estey Wire Works Co., 59 Fulton St., New
 York.

Glen Mfg. Co., Ellwood City, Pa.
 Ludlow-Saylor Wire Co., St. Louis, Mo.
 Merritt & Co., 1024-1028 Ridge Ave., Phila-
 delphia, Pa.

National Iron & Wire Co., Cleveland, O.
 Stewart Iron Works Co., Cincinnati, O.
 W. S. Tyler Co., Cleveland, O.
 Van Dorn Iron Works, Cleveland, O.
 Webster & Perks Tool Co., Springfield, O.
 Wright Wire Co., Worcester, Mass.

Elevator Slides, Shapes for—

Finished Steel Co., Youngstown, O.

Elevator Slides, Shapes for—

Buhl Malleable Co., Detroit, Mich.
 H. W. Caldwell & Son Co., Western Ave.
 and 17th St., Chicago, Ill.
 Jeffrey Mfg. Co., Columbus, O.
 Link-Belt Engineering Co., Nicetown,
 Philadelphia, Pa.
 Charles Mundt & Sons, 441-447 Pearl St.,
 New York.

New Jersey Foundry & Machine Co., 9-15
 Murray St., New York.

Warsaw Elevator Co., Warsaw, N. Y.

Elevators, Belt—

H. W. Caldwell & Son Co., Western Ave.
 and 17th St., Chicago, Ill.
 W. E. Caldwell Co., Louisville, Ky.
 Case Mfg. Co., Columbus, O.
 Dodge Mfg. Co., Mishawaka, Ind.
 Geo. V. Cresson Co., 18th St and Alle-
 gheny Ave., Philadelphia, Pa.
 Eastern Machinery Co., New Haven, Ct.
 Energy Elevator Co., 411 Cherry St.,
 Philadelphia, Pa.
 Franklin Machine Works, St. Paul, Minn.
 Grant Mfg. & Machine Co., Bridgeport,
 Ct.

Haven Elevator Co., Cincinnati, O.
 Howard Iron Works, Buffalo, N. Y.
 Interstate Engineering Co., Bedford, O.
 Jeffrey Mfg. Co., Columbus, O.
 Main Belting Co., 1219 Carpenter St.,
 Philadelphia, Pa.
 Morse, Williams & Co., Philadelphia, Pa.
 New Jersey Foundry & Machine Co., 9-15
 Murray St., New York.
 Northern Engineering Works, Detroit,
 Mich.

Salem Elevator Works, Salem, Mass.

Sidney Elevator Mfg. Co., Sidney, O.

J. G. Speidel, Reading, Pa.

Storm Mfg. Co., Newark, N. J.

Warner Elevator Mfg. Co., Cincinnati, O.

Warsaw Elevator Co., Warsaw, N. Y.

MERCHANTS

Fairbanks Co., 416 Broome St., New York.
 C. C. Wormer Machinery Co., Detroit,
 Mich.

Elevators, Cotton—

B. F. Sturtevant Co., Boston, Mass.

Elevators, Electric—

Eastern Machinery Co., New Haven, Ct.
 Franklin Machine Works, St. Paul, Minn.
 Haven Elevator Co., Cincinnati, O.
 Howard Iron Works, Buffalo, N. Y.
 Morse, Williams & Co., Philadelphia, Pa.
 New Jersey Foundry & Machine Co., 9-15
 Murray St., New York.
 Northern Engineering Works, Detroit,
 Mich.

Salem Elevator Works, Salem, Mass.

Sidney Elevator Mfg. Co., Sidney, O.

Storm Mfg. Co., Newark, N. J.

Warner Elevator Mfg. Co., Cincinnati, O.

Warsaw Elevator Co., Warsaw, N. Y.

Elevators, Ensilage Cutter—

Silver Mfg. Co., Salem, O.

Elevators, Foundry—

Northern Engineering Works, Detroit,
 Mich.

S. Obermayer Co., Cincinnati, O.

Warsaw Elevator Co., Warsaw, N. Y.

Waring Foundry Equipment Co., Harvey,
 Ill.

Elevators, Freight—

Eastern Machinery Co., New Haven, Ct.

Energy Elevator Co., 411 Cherry St.,
 Philadelphia, Pa.

Haven Elevator Co., Cincinnati, O.

Howard Iron Works, Buffalo, N. Y.

Morse, Williams & Co., West End Trust
 Bldg., Philadelphia, Pa.

New Jersey Foundry & Machine Co., 9-15
 Murray St., New York.

Northern Engineering Works, Detroit,
 Mich.

Salem Elevator Works, Salem, Mass.

Sidney Elevator Mfg. Co., Sidney, O.

Storm Mfg. Co., Newark, N. J.

Warner Elevator Mfg. Co., Cincinnati, O.

Warsaw Elevator Co., Warsaw, N. Y.

Elevators, Grain—

American Bridge Co., New York, 42
 Broadway, New York.

H. W. Caldwell & Son Co., Western Ave.
 and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Poole Engineering & Machine Co., Balti-
 more, Md.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Robins Conveying Belt Co., Park Row
 Bldg., New York.

Elevators, Hand Power—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Energy Elevator Co., 408 Cherry St., Philadelphia, Pa.
Franklin Machine Works, St. Paul, Minn.
E. Harrington, Son & Co. (Inc.), Philadelphia, Pa.
Haven Elevator Co., Cincinnati, O.
Howard Iron Works, Buffalo, N. Y.
Morse, Williams & Co., Philadelphia, Pa.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
Northern Engineering Works, Detroit, Mich.

Salem Elevator Works, Salem, Mass.
Sidney Elevator Mfg. Co., Sidney, O.
J. G. Speidel, Reading, Pa.
Storm Mfg. Co., Newark, N. J.
Warner Elevator Mfg. Co., Cincinnati, O.
Warsaw Elevator Co., Warsaw, N. Y.

Elevators, Hydraulic—
Haven Elevator Co., Cincinnati, O.
Howard Iron Works, Buffalo, N. Y.
Morse, Williams & Co., Philadelphia, Pa.
Warner Elevator Mfg. Co., Cincinnati, O.
Warsaw Elevator Co., Warsaw, N. Y.

Elevators, Passenger—
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
Haven Elevator Co., Cincinnati, O.
Howard Iron Works, Buffalo, N. Y.
Morse, Williams & Co., Philadelphia, Pa.
National Iron & Wire Co., Cleveland, O.
Salem Elevator Works, Salem, Mass.
Sidney Elevator Mfg. Co., Sidney, O.
Storm Mfg. Co., Newark, N. J.
Warner Elevator Mfg. Co., Cincinnati, O.
Warsaw Elevator Co., Warsaw, N. Y.

Elevators, Pneumatic—
Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Elevators, Sidewalk—
(See Hoists, Sidewalk.)

Elevators, Steam - Hydraulic—

Craig Ridgway & Son Co., Coatesville, Pa.

Elevators, Vehicle—
Energy Elevator Co., 411 Cherry St., Philadelphia, Pa.

Howard Iron Works, Buffalo, N. Y.
Salem Elevator Works, Salem, Mass.
Sidney Elevator Mfg. Co., Sidney, O.
Warsaw Elevator Co., Warsaw, N. Y.

Elevators, Water—
Buhl Malleable Co., Detroit, Mich.
H. W. Caldwell & Son Co., Western Ave. and 11th St., Chicago, Ill.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Warsaw Elevator Co., Warsaw, N. Y.

Embossed Brass—
(See Brass.)

Embossing Dies—
(See Stamps and Dies, Steel.)

Embossing Punch—
(See Funches, Embossing.)

Emery—

Abrasive Material Co., Philadelphia, Pa.
American Emery Wheel Works, Providence, R. I.
George G. Blackwell, Sons & Co., The Albany, Liverpool, England.
Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Hamilton Emery & Corundum Co., Chester, Mass.
Oriental Emery Co., Derby, Ct.
Northampton Emery Wheel Co., Leeds, Mass.
Norton Emery Wheel Co., Worcester, Mass.
Safety Emery Wheel Co., Springfield, O.
Sterling Emery Wheel Mfg. Co., Tiffin, O.
Turned Wheel Co., Westfield, Mass.

Emery Bricks—
American Emery Wheel Works, Providence, R. I.

Safety Emery Wheel Co., Springfield, O.

Emery Cloth—
(See Cloth.)

Emery Grinding Pans.

Stones, &c.—
(See Pans, Stones, &c.)

Emery Rubs for Foundry Use—

Abrasive Material Co., Philadelphia, Pa.
American Emery Wheel Works, Providence, R. I.
Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Norton Emery Wheel Co., Worcester, Mass.

S. Obermayer Co., Cincinnati, O.
Safety Emery Wheel Co., Springfield, O.
Sterling Emery Wheel Mfg. Co., Tiffin, O.
Turned Wheel Co., Westfield, Mass.

Employment Bureau. Engineering—

Engineering Agency, Monadnock Block, Chicago, Ill.

Enameling—

Avery Stamping Co., Cleveland, O.
John W. Clark, Albany, N. Y.

Cleveland Stamping & Tool Co., Cleveland, O.

E. B. Estes & Sons, 45-47 John St., N. Y.

John R. Keim Mills, Buffalo, N. Y.

Enclosures, Elevator—
(See Elevator Enclosures.)

End Mills—
(See Mills.)

Ends, Curtain Pole—

E. B. Estes & Sons, 45-47 John St., N. Y.

Engine Bells, Governors, &c.—
(See Bells, Governors, &c.)

Engineers, Blast Furnace.

Constructing—

Walter Kennedy, Pittsburgh, Pa.
Alex Laughlin & Co., Pittsburgh, Pa.
G. W. McClure, Son & Co., Pittsburgh, Pa.
Arthur G. McKee, Cleveland, O.
D. F. Nisbet, Pittsburgh, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Bridge and Structural, Constructing—

American Bridge Co. of New York, Broadway, New York.

Baltimore Bridge Co., Baltimore, Md.
 Boston Bridge Works, Boston, Mass.
 Interstate Engineering Co., Bedford, O.
 Julian Kennedy, Pittsburgh, Pa.
 Kenwood Bridge Co., First National Bank Bldg., Chicago, Ill.
 McClintock-Marshall Construction Co., Pittsburgh, Pa.
 Lewis F. Shoemaker & Co., Harrison Bldg., Philadelphia, Pa.
 Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Bridge and Structural Designing—
 American Bridge Co. of New York, 42 Broadway, New York.

Baltimore Bridge Co., Baltimore, Md.
 Boston Bridge Works, Boston, Mass.
 Interstate Engineering Co., Bedford, O.
 Julian Kennedy, Pittsburgh, Pa.
 Kenwood Bridge Co., First National Bank Bldg., Chicago, Ill.
 McClintock-Marshall Construction Co., Pittsburgh, Pa.

D. F. Nisbet, Pittsburgh, Pa.
 Wm. B. Scaife & Sons Co., Pittsburgh.
 Wellman-Seaver-Morgan Co., Cleveland, O.
Engineers, Cement Plant—
 Curtin-Ruggles Co., 39 Cortlandt St., New York.

Engineers, Civil, Constructing—
 Forter-Miller Engineering Co., Pittsburgh.
 Julian Kennedy, Pittsburgh, Pa.
 Wellman-Seaver-Morgan Co., Cleveland.

Engineers, Civil, Consulting and Designing—
 Robert W. Hunt & Co., 66 Broadway, New York.

Julian Kennedy, Pittsburgh, Pa.
 Wellman-Seaver-Morgan Co., Cleveland.
Engineers, Constructing—
 American Bridge Co. of New York, 42 Broadway, New York.

American Furnace & Machine Co., Pittsburgh, Pa.
 Baltimore Bridge Co., Baltimore, Md.
 Belmont Iron Works, Inc., Philadelphia.
 Boston Bridge Works, Boston, Mass.
 Browning Engineering Co., Cleveland, O.
 Curtin-Ruggles Co., 39 Cortlandt St., New York.

Fawcus Machine Co., Pittsburgh, Pa.
 Forter-Miller Engineering Co., Pittsburgh.
 Garrett-Cromwell Engineering Co., Cleveland, O.

I. & E. Greenwald Co., Cincinnati, O.
 J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.

S. V. Huber & Co., Pittsburgh, Pa.
 Interstate Engineering Co., Bedford, O.
 E. Keeler Co., Williamsport, Pa.
 Julian Kennedy, Pittsburgh, Pa.
 Walter Kennedy, Pittsburgh, Pa.

Alex Laughlin & Co., Pittsburgh, Pa.
 G. W. McClure, Son & Co., Pittsburgh.
 Arthur G. McKee, Cleveland, O.
 Morgan Construction Co., Worcester, Mass.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Passaic Steel Co., Paterson, N. J.
 Pennsylvania Engineering Works, New Castle, Pa.
 Robins Conveying Belt Co., Park Row Bldg., New York.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
 Lewis F. Shoemaker & Co., Harrison Bldg., Philadelphia, Pa.
 S. It. Smythe Co., Pittsburgh, Pa.
 Wm. Swindell & Bro., Pittsburgh, Pa.
 Hugh L. Thompson, Waterbury, Ct.
 Walworth Mfg. Co., Boston, Mass.
 Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Electrical—
 Crocker-Wheeler Co., Ampere, N. J.
 Arthur G. McKee, Cleveland, O.

Engineers, Electrical, Constructing—
 Crocker-Wheeler Co., Ampere, N. J.
 Northern Engineering Works, Detroit, Mich.

Engineers, Foundry Constructing—
 Northern Engineering Works, Detroit, Mich.

Engineers, Heating and Ventilating—
 American Blower Co., Detroit, Mich.
 E. Keeler Co., Williamsport, Pa.
 B. F. Sturtevant Co., Boston, Mass.

Engineers, Heating and Ventilating, Constructing—
 E. Keeler Co., Williamsport, Pa.

Engineers, Illuminating—
 General Electric Co., Schenectady, N. Y.

Engineers, Inspecting and Consulting—
 Robert W. Hunt & Co., 66 Broadway, New York.

Engineers, Manufacturing Plants—
 Arthur G. McKee, Cleveland, O.

Engineers, Mechanical—
 Henry Alken, Pittsburgh, Pa.
 American Furnace & Machine Co., Pittsburgh, Pa.

Ralph Crooker, Jr., Pittsburgh, Pa.
 Curtin-Ruggles Co., 39 Cortlandt St., New York.

Dodge Mfg. Co., Mishawaka, Ind.
 Fawcus Machine Co., Pittsburgh, Pa.
 Forter-Miller Engineering Co., Pittsburgh.
 Garrett-Cromwell Engineering Co., Cleveland, O.

J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.

S. V. Huber & Co., Pittsburgh, Pa.
 Robert W. Hunt & Co., 66 Broadway, New York.

Interstate Engineering Co., Bedford, O.
 Walter Kennedy, Pittsburgh, Pa.

Arthur G. McKee, Cleveland, O.
 Morgan Construction Co., Worcester, Mass.
 D. F. Nisbet, Pittsburgh, Pa.

Power Specialty Co., 111 Broadway, New York.

Walworth Mfg. Co., Boston, Mass.
 Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Mechanical, Constructing—
 Dodge Mfg. Co., Mishawaka, Ind.

Forter-Miller Engineering Co., Pittsburgh, Pa.

Garrett-Cromwell Engineering Co., Cleveland, O.

J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.

S. V. Huber & Co., Pittsburgh, Pa.
 Interstate Engineering Co., Bedford, O.
 Julian Kennedy, Pittsburgh, Pa.

Walter Kennedy, Pittsburgh, Pa.
G. W. McClure, Son & Co., Pittsburgh.
Arthur G. McKee, Cleveland, O.
Morgan Construction Co., Worcester, Mass.
D. F. Nisbet, Pittsburgh, Pa.
Northern Engineering Works, Detroit, Mich.
Pennsylvania Engineering Works, New Castle, Pa.
Power Specialty Co., 111 Broadway, New York.
Robins Conveying Belt Co., Park Row Bldg., New York.
Wm. B. Scaife & Sons Co., Pittsburgh.
S. R. Smythe Co., Pittsburgh, Pa.
Wm. Swindell & Bros., Pittsburgh, Pa.
Hugh L. Thompson, Waterbury, Ct.
Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Mechanical, Consulting—

Ralph Crooker, Jr., Pittsburgh, Pa.
Dodge Mfg. Co., Mishawaka, Ind.
Garrett-Cromwell Engineering Co., Cleveland, O.
J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.
S. V. Huber & Co., Pittsburgh, Pa.
Julian Kennedy, Pittsburgh, Pa.
Walter Kennedy, Pittsburgh, Pa.
G. W. McClure, Son & Co., Pittsburgh.
Arthur G. McKee, Cleveland, O.
Morgan Construction Co., Worcester, Mass.
D. F. Nisbet, Pittsburgh, Pa.
Power Specialty Co., 111 Broadway, New York.
S. R. Smythe Co., Pittsburgh, Pa.
Hugh L. Thompson, Waterbury, Ct.
Wellman-Seaver-Morgan Co., Cleveland, O.
C. C. Wormer Machinery Co., Detroit, Mich.

Engineers, Mechanical, Designing—

Dodge Mfg. Co., Mishawaka, Ind.
Garrett-Cromwell Engineering Co., Cleveland, O.
J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.
S. V. Huber & Co., Pittsburgh, Pa.
Interstate Engineering Co., Bedford, O.
Julian Kennedy, Pittsburgh, Pa.
Walter Kennedy, Pittsburgh, Pa.
G. W. McClure, Son & Co., Pittsburgh.
Arthur G. McKee, Cleveland, O.
Morgan Construction Co., Worcester, Mass.
D. F. Nisbet, Pittsburgh, Pa.
Northern Engineering Works, Detroit, Mich.
Pennsylvania Engineering Works, New Castle, Pa.
Power Specialty Co., 111 Broadway, New York.
Robins Conveying Belt Co., Park Row Bldg., New York.
Wm. B. Scaife & Sons Co., Pittsburgh.
Wm. Swindell & Bros., Pittsburgh, Pa.
Hugh L. Thompson, Waterbury, Ct.
Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Metallurgical—

Henry Souther Engineering Co., Hartford, Ct.

Engineers, Mining—

Wellman-Seaver-Morgan Co., Cleveland.
Wellman-Seaver-Morgan Co., Cleveland.
Engineers, Steel Buildings—
Arthur G. McKee, Cleveland, O.

Engineers, Steel Works and Rolling Mills—

American Furnace & Machine Co., Pittsburgh, Pa.
Ralph Crooker, Jr., Pittsburgh, Pa.
Forster-Miller Engineering Co., Pittsburgh.
Garrett-Cromwell Engineering Co., Cleveland, O.
J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.
S. V. Huber & Co., Pittsburgh, Pa.
Julian Kennedy, Pittsburgh, Pa.
Walter Kennedy, Pittsburgh, Pa.
N. Lillenberg, Betz Bldg., Philadelphia.
Arthur G. McKee, Cleveland, O.
G. W. McClure, Son & Co., Pittsburgh.
D. F. Nisbet, Pittsburgh, Pa.
S. R. Smythe Co., Pittsburgh, Pa.
Hugh L. Thompson, Waterbury, Ct.
Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Steel Works and Rolling Mills, Constructing—

Ralph Crooker, Jr., Pittsburgh, Pa.
Forster-Miller Engineering Co., Pittsburgh, Pa.
Garrett-Cromwell Engineering Co., Cleveland, O.
J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.
S. V. Huber & Co., Pittsburgh, Pa.
Julian Kennedy, Pittsburgh, Pa.
Walter Kennedy, Pittsburgh, Pa.
Kenwood Bridge Co., First National Bank Bldg., Chicago, Ill.
Alex. Laughlin & Co., Pittsburgh, Pa.
G. W. McClure, Son & Co., Pittsburgh.
Arthur G. McKee, Cleveland, O.
Morgan Construction Co., Worcester, Mass.
D. F. Nisbet, Pittsburgh, Pa.
Northern Engineering Works, Detroit, Mich.
Pennsylvania Engineering Works, New Castle, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh.
S. R. Smythe Co., Pittsburgh, Pa.
Wm. Swindell & Bros., Pittsburgh, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Steel Works and Rolling Mills, Consulting—

Ralph Crooker, Jr., Pittsburgh, Pa.
S. V. Huber & Co., Pittsburgh, Pa.
Ladd & Baker, Real Estate Trust Bldg., Philadelphia, Pa.
Arthur G. McKee, Cleveland, O.
Morgan Construction Co., Worcester, Mass.
D. F. Nisbet, Pittsburgh, Pa.

Engineers, Steel Works and Rolling Mills, Designing—

Ralph Crooker, Jr., Pittsburgh, Pa.
Garrett-Cromwell Engineering Co., Cleveland, O.
J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.
S. V. Huber & Co., Pittsburgh, Pa.
Julian Kennedy, Pittsburgh, Pa.
Walter Kennedy, Pittsburgh, Pa.
Kenwood Bridge Co., First National Bank Building, Chicago, Ill.
Ladd & Baker, Real Estate Trust Bldg., Philadelphia, Pa.
Alex. Laughlin & Co., Pittsburgh, Pa.
G. W. McClure, Son & Co., Pittsburgh.
Arthur G. McKee, Cleveland, O.
Morgan Construction Co., Worcester, Mass.
D. F. Nisbet, Pittsburgh, Pa.

Northern Engineering Works, Detroit, Mich.

Pennsylvania Engineering Works, New Castle, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, S. R. Smythe Co., Pittsburgh, Pa.

Wm. Swindell & Bros., Pittsburgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Steel Works and Rolling Mills, Inspecting—

Ralph Crooker, Jr., Pittsburgh, Pa.

Garrett-Cromwell Engineering Co., Cleveland, O.

J. A. Herrick Mutual Life Bldg., Philadelphia, Pa.

Julian Kennedy, Pittsburgh, Pa.

Walter Kennedy, Pittsburgh, Pa.

G. W. McClure, Son & Co., Pittsburgh, Arthur G. McKee, Cleveland, O.

Morgan Construction Co., Worcester, Mass.

D. F. Nisbet, Pittsburgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Air—

E. W. Bliss Co., Brooklyn, N. Y.

Ingersoll-Rand Co., 11 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

MERCHANTS.

Joseph T. Ryerson & Son, 13-22 Milwaukee Ave., Chicago, Ill.

Engines, Alcohol—

August Metz, 123-138 Mott St., New York.

Engines, Blowing—

Mackintosh, Hemphill & Co., Pittsburgh, Mesta Machine Co., Pittsburgh, Pa.

Southwark Foundry & Machine Co., Philadelphia, Pa.

William Tod Co., Youngstown, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

Robt. Wetherill & Co., Chester, Pa.

Engines, Deep Well Pumping—

American Steam Pump Co., Battle Creek, Mich.

Engines, Fire—

Deming Co., Salem, O.

W. & B. Douglas, Middletown, Ct.

Engines, Garden—

W. & B. Douglas, Middletown, Ct.

Goulds Mfg. Co., Seneca Falls, N. Y.

Engines, Gas and Gasoline—

Buffalo Forge Co., Buffalo, N. Y.

Charter Gas Engine Co., Sterling, Ill.

Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.

Chicago Scale Co., 232-236 Jackson Boulevard, Chicago, Ill.

Cincinnati Engine & Machine Co., Cincinnati, O.

Clipper Lawn Mower Co., Dixon, Ill.

Julian D'Este Co., Boston, Mass.

Davis Mfg. Co., Milwaukee, Wis.

C. H. A. Dissinger & Bro., Wrightsville, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Fairbanks Co., 415 Broome St., New York.

H. H. Franklin Mfg. Co., Syracuse, N. Y.

Aug. Metz, 123-138 Mott St., New York.

Myrick Machine Co., Olean, N. Y.

Northern Engineering Works, Detroit, Mich.

Robertson Mfg. Co., Buffalo, N. Y.

Strang Engine Co., 140 Dearborn St., Chicago, Ill.

Struthers, Wells & Co., Warren, Pa.

J. Thompson & Sons Mfg. Co., Beloit, Wis.

William Tod Co., Youngstown, O.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Weber Gas & Gasoline Engine Co., Kansas City, Mo.

Wellman-Seaver-Morgan Co., Cleveland, O.

White Lily Washer Co., Davenport, Ia.

MERCHANTS.

Barclay M. Everson, Pittsburgh, Pa.

Hannan & Finton, Springfield, Mass.

Lovegrove & Co., 135 N. 3d St., Philadelphia, Pa.

McDowell & Co., Allegheny, Pa.

F. E. Pfannmueller & Co., First National Bank Bldg., Chicago, Ill.

A. E. Roseenthal, Davenport, Ia.

L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.

Charles G. Shepard, Buffalo, N. Y.

Frank Toomey, 127-131 N. 3d St., Philadelphia, Pa.

Jacob Ulman, Buffalo, N. Y.

Wickes Bros., Saginaw, Mich.

C. C. Wormer Machinery Co., Detroit, Mich.

Walter A. Zelnicker Supply Co., St. Louis.

Engines, Gas and Gasoline, Hoisting—

Robertson Mfg. Co., Buffalo, N. Y.

Strang Engine Co., 140 Dearborn St., Chicago, Ill.

Engines, Gas and Gasoline, Launch—

Automatic Machine Co., Bridgeport, Ct.

Charter Gas Engine Co., Sterling, Ill.

C. H. A. Dissinger & Bro., Wrightsville, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Robertson Mfg. Co., Buffalo, N. Y.

Strang Engine Co., 140 Dearborn St., Chicago, Ill.

Engines, Gas and Gasoline, Pumping—

Charter Gas Engine Co., Sterling, Ill.

Deming Co., Salem, O.

C. H. A. Dissinger & Bro., Wrightsville, Pa.

Strang Engine Co., 140 Dearborn St., Chicago, Ill.

Struthers, Wells & Co., Warren, Pa.

J. Thompson & Sons Mfg. Co., Beloit, Wis.

Engines, Gasoline, Tracing—

C. H. A. Dissinger & Bro., Wrightsville, Pa.

Engines, Hoisting—

Brown Hoisting Machinery Co., Cleveland.

Browning Engineering Co., Cleveland, O.

Charter Gas Engine Co., Sterling, Ill.

Thomas P. Conard & Co., 119 So. 4th St., Philadelphia, Pa.

C. W. Hunt Co., West New Brighton, N. Y.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

Mesta Machine Co., Pittsburgh, Pa.

A. Metz, 123 Mott St., New York.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Northern Engineering Works, Detroit, Mich.
Pittsburgh Industrial Iron Works, Pittsburgh, Pa.
Soule Steam Feed Works, Meridian, Miss.
William Tod Co., Youngstown, O.
Wellman-Seaver-Morgan Co., Cleveland, O.
Wickes Bros., Saginaw, Mich.

MERCHANTS.

Charles Behlen, 72 Trinity Pl., New York.
A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.
McDowell & Co., Allegheny, Pa.
L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.
Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.
Jacob Ullman, Buffalo, N. Y.
C. C. Wormer Machinery Co., Detroit, Mich.

Engines, Hoisting, Pneumatic—
Ingersoll-Rand Co., 11 Broadway, New York.

Engines, Hydraulic—
(See Motors, Water.)

Engines, Hydrocarbon. Ignition Apparatus for—
Baker & Co., Inc., Newark, N. J.

Engines, Marine—
Clipper Lawn Mower Co., Dixon, Ill.
Chas. F. Elmes Engineering Works, 23-259 Fulton St., Chicago, Ill.
Newport News Ship Building & Dry Dock Co., Newport News, Va.
John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.
Sheffield Car Co., Three Rivers, Mich.

MERCHANTS.

L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.
C. C. Wormer Machinery Co., Detroit, Mich.

Engines, Oil—
Aug. Metz, 128-138 Mott St., New York.
Strang Engine Co., 140 Dearborn St., Chicago, Ill.

Engines, Oil, Marine—
Aug. Metz, 128-138 Mott St., New York.
Strang Engine Co., 140 Dearborn St., Chicago, Ill.

Engines, Pumping—
E. W. Bliss Co., Brooklyn, N. Y.
Deming Co., Salem, O.
Fred M. Prescott Steam Pump Co., Milwaukee, Wis.
Southwark Foundry & Machine Co., Philadelphia, Pa.
William Tod Co., Youngstown, O.
Robert Wetherill & Co., Chester, Pa.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

MERCHANTS.

Carlin Machinery & Supply Co., Allegheny, Pa.
A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.
F. E. Pfannmueller & Co., First National Bank Bldg., Chicago, Ill.
C. C. Wormer Machinery Co., Detroit, Mich.

Engines, Rolling Mill—
Alliance Machine Co., Alliance, O.
George A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.

Hooven, Owens, Rentschler Co., Hamilton, O.
Mackintosh, Hemphill & Co., Pittsburgh.
Mesta Machine Co., Pittsburgh, Pa.
Morgan Construction Co., Worcester, Mass.
Southwark Foundry & Machine Co., Philadelphia, Pa.
William Tod Co., Youngstown, O.
Wellman-Seaver-Morgan Co., Cleveland, O.
Robert Wetherill & Co., Chester, Pa.
Wickes Bros., Saginaw, Mich.

MERCHANTS.

Charles Behlen, 72 Trinity Pl., New York.
Barclay M. Everson, Pittsburgh, Pa.
A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.
Geo. A. McLean & Co., Pittsburgh, Pa.
F. E. Pfannmueller & Co., First National Bank Bldg., Chicago, Ill.
Phillips-Laffitte Co., Pennsylvania Bldg., Philadelphia, Pa.
Rossiter, MacGovern & Co., 141 Broadway, New York.
L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.

Engines, Rotary Steam—
Soule Steam Feed Works, Meridian, Miss.

Engines, Skidding—
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

Engines, Steam—
American Blower Co., Detroit, Mich.
Boston Blower Co., Hyde Park, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Thos. Carlin's Sons, Allegheny, Pa.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.
Chas. F. Elmes Engineering Works, 23-259 Fulton St., Chicago, Ill.
Exeter Machine Works, Exeter, N. H.
I. & E. Greenwald Co., Cincinnati, O.
George A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.

Hooven, Owens, Rentschler Co., Hamilton, O.
Howard & Morse, 45 Fulton St., N. Y.
Mackintosh, Hemphill & Co., Pittsburgh.
Mesta Machine Co., Pittsburgh, Pa.
Newport News Ship Building & Dry Dock Co., Newport News, Va.
F. R. Patch Mfg. Co., Rutland, Vt.
Ridgway Dynamo & Engine Co., Ridgway, Pa.

Southwark Foundry & Machine Co., Philadelphia, Pa.
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
Struthers, Wells & Co., Warren, Pa.
R. F. Sturtevant Co., Boston, Mass.
William Tod Co., Youngstown, O.
Vanderbeck Tool Works, Hartford, Ct.
Vilter Mfg. Co., Milwaukee, Wis.
Wellman-Seaver-Morgan Co., Cleveland, O.
Robt. Wetherill & Co., Chester, Pa.
Wickes Bros., Saginaw, Mich.

MERCHANTS.

Charles Behlen, 72 Trinity Place, N. Y.
Carlin Machinery & Supply Co., Allegheny, Pa.
Chicago Edison Co., Edison Bldg., Chicago, Ill.
Cleveland Belting & Machine Co., Cleveland, O.
John W. Cole, Providence, R. I.
Columbus Equipment Co., Columbus, O.

W. P. Davis Machine Co., Rochester, N. Y.
 Charles E. Dustin Co., 11 Broadway, New York.
 Barclay M. Everson, Pittsburgh, Pa.
 Fairbanks Co., 416 Broome St., New York.
 Huntington Machinery & Supply Co., Wilkes-Barre, Pa.
 Jeffrey Mfg. Co., Columbus, O.
 W. G. Johnson & Sons Machinery Co., St. Louis, Mo.
 A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.
 Lovegrove & Co., Inc., 143-145 N. 3d St., Philadelphia, Pa.
 McDowell & Co., Allegheny, Pa.
 Geo. A. McLean & Co., Pittsburgh, Pa.
 F. E. Pannmueller & Co., First National Bank Bldg., Chicago, Ill.
 A. E. Rosenthal, Davenport, Ia.
 Rossiter, MacGovern & Co., 141 Broadway, New York.
 W. L. Sargent, Fitchburg, Mass.
 L. F. Seyfert's Sons, 437-441 No. 3d St., Philadelphia, Pa.
 Charles G. Shepard, Buffalo, N. Y.
 Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.
 Jacob Ullman, Buffalo, N. Y.
 E. O. Williams, 63 So. Canal St., Chicago, Ill.
 C. C. Wormer Machinery Co., Detroit, Mich.
 Yearsley & Levene, 305 N. 3d St., Philadelphia, Pa.
Engines, Steam Auto-mobile—
 Mason Regulator Co., Boston, Mass.
Engravers and Designers—
 A. Mugford, Hartford, Ct.
 Schwerdtle Stamp Co., Bridgeport, Ct.
Engravers' or Sign Brass—
 (See Brass, Sign.)
Engravers' Tools—
 (See Tools, Engravers'.)
Engraving, Brass and Steel—
 New York Stencil Works, 100 Nassau St., New York.
 Schwerdtle Stamp Co., Bridgeport, Ct.
Engraving Lathes, Roll—
 (See Lathes, Roll Engraving.)
Engraving, Photo, Half-tone and Wood—
 A. Mugford, Hartford, Ct.
Ensilage and Feed Cutters—
 (See Cutters, Feed.)
Ensilage Cutter Elevators—
 (See Elevators, Ensilage Cutter.)
Entrances, Cemetery and Park—
 (See Fencing, Gates, &c.)
Equipment, Telegraph and Telephone Pole Line—
 (See Telegraph and Telephone Pole Line Equipment.)
Erasers—
 Alfred Field & Co., 93 Chambers St., New York.
 Landers, Fry & Clark, New Britain, Ct.
 Wielbusch & Hilger, Ltd., 9-15 Murray St., New York.
Erasers, Rubber—
 Jos. Dixon Crucible Co., Jersey City, N. J.
 Keuffel & Esser Co., 127 Fulton St., New York.

Escapes, Fire—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Chesapeake Iron Works, Baltimore, Md.
 Enterprise Foundry & Fence Co., Indianapolis, Ind.
 Exeter Machine Works, Exeter, N. H.
 Forest City Steel & Iron Co., Cleveland, O.
 Glen Mfg. Co., Ellwood City, Pa.
 Howard & Morse, 45 Fulton St., N. Y.
 W. N. Kratzer & Co., Pittsburgh, Pa.
 Ludlow-Saylor Wire Co., St. Louis, Mo.
 Merritt & Co., 1024-1028 Ridge Ave., Philadelphia, Pa.
 Ohio Structural Iron Co., Sandusky, O.
 Stewart Iron Works Co., Cincinnati, O.
 Van Dorn Iron Works Co., Cleveland, O.
 Wright Wire Co., Worcester, Mass.

Escutcheon Pins—

(See Pins.)

Escutcheons—

American Ring Co., Waterbury, Ct.
 J. B. & J. M. Cornell, 26th St. and 11th Ave., New York.
 Eagle Lock Co., Terryville, Ct.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
 Taylor & Boggis Foundry Co., Cleveland, O.
 Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Evaporators, Sugar—

J. B. & J. M. Cornell, 26th St. and 11th Ave., New York.

Eveners, Plow—

Automatic Yoke Co., Indianapolis, Ind.

Excavating Machinery—

Broderick & Bascom Rope Co., St. Louis.
 Ingersoll-Rand Co., 11 Broadway, New York.

Interstate Engineering Co., Bedford, O.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.

A. Leschen & Sons Rope Co., St. Louis.
 Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

Vulcan Iron Works, Chicago, Ill.

Wellman-Seaver-Morgan Co., Cleveland.

Exercisers—

Caldwell Mfg. Co., Rochester, N. Y.

Exercisers, Physical—

Hill-Standard Mfg. Co., Anderson, Ind.

Exhaust Heads—

(See Heads, Exhaust.)

Exhausters—

(See Fans.)

Exhausters, Gas—

American Blower Co., Detroit, Mich.
 Buffalo Forge Co., Buffalo, N. Y.
 Connersville Blower Co., Connersville, Ind.
 H. F. Sturtevant Co., Boston, Mass.

Expanded Metal—

Merritt & Co., 1024-1028 Ridge Ave., Philadelphia, Pa.

Expanders, Bicycle—

(See Bicycle Expanders.)

Expanders, Tube—

American Die & Tool Co., Reading, Pa.
 Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Richard Dudgeon, 24 Columbia St., N. Y.

Helwig Mfg. Co., St. Paul, Minn.

A. L. Hengeler's Sons, Wilmington, Del.

Watson-Sillman Co., 46 Dey St., New York.

Expanding Dies, Adjustable—
(See Dies, Adjustable Expanding.)
Expansion Augers, Bits, Bolts, &c.—
(See Augers, Bits, Bolts, &c.)
Experimental Work—
(See Model and Experimental Work.)
Exploders, Cartridge, Came Tip—
Susquehanna Casting Co., Wrightsville, Pa.
Exporters, English—
Hanson, Brown & Co., Ltd., Middlesbrough, England.
Exporters, Machinery—
Chas. G. Eckstein, 249 Centre St., N. Y.
Extension Bit Holders, Braces, Gates—
(See Holders, Braces, Gates.)
Extinguishers, Fire—
E. B. Badger & Sons Co., Boston, Mass.
H. W. Johns-Manville Co., 100 William St., New York.
Walworth Mfg. Co., Boston, Mass.
Extinguishers, Lamp—
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Extractors, Centrifugal—
American Tool & Machine Co., Boston.
Extractors, Juice—
Enterprise Mfg. Co., Philadelphia, Pa.
Extractors or Disgorgers, Fish Hook—
Enterprise Mfg. Co., Akron, O.
Extractors, Weed—
F. E. Kohler & Co., Canton, O.
Eye Bolt Machines—
Williams, White & Co., Moline, Ill.
Eye Bolts, Trolley—
(See Trolley Materials, Electric.)
Eye Hoes—
(See Hoes, Eye)
Eye Shields, Mica—
J. W. Paxson Co., Philadelphia, Pa.
Eyelet Machines—
Blake & Johnson, Waterbury, Ct.
E. J. Manville Machine Co., Waterbury, Ct.
Eyelet Punches—
(See Punches, Eyelet and Fastener.)
Eyelets, Metallic—
Arthur T. Rutter & Co., 256 Broadway, New York.
E. L. Sibbey, Bennington, Vt.
Waterbury Brass Co., Waterbury, Ct.
Eyes, Cook—
Covert Mfg. Co., Troy, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Eyes, Dead, Bull's, &c.—
Boston & Lockport Block Co., Boston.
Eyes, Drifting Pick—
Hubbard & Co., Pittsburgh, Pa.
Eyes, Hot House or Garden—
M. S. Brooks & Sons, Chester, Ct.
Parker Wire Goods Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.
Eyes, Railroad Pick—
Hubbard & Co., Pittsburgh, Pa.
Eyes, Shutter—
Diamond Expansion Bolt Co., 9-15 Murray St., New York.
Face Plate Jaws—
(See Jaws, Face Plate.)

Face Plates, Lathe—
Massachusetts Tool Co., Greenfield, Mass.
Union Mfg. Co., New Britain, Ct.
Facing Machines, Nut—
Acme Machinery Co., Cleveland, O.
Detrick & Harvey Machine Co., Baltimore, Md.
National Machinery Co., Tiffin, O.
Niles-Bement-Pond Co., 111 Broadway, New York.
Facings, Foundry—
Jos. Dixon Crucible Co., Jersey City, N. J.
Edward J. Eiting, Harrison Bldg., Philadelphia, Pa.
Foundry Specialty Co., Cincinnati, O.
E. M. Haedrich, 311 1/2 Walnut St., Philadelphia, Pa.
S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., Philadelphia, Pa.
J. D. Smith Foundry Supply Co., Cleveland, O.
Springfield Facing Co., Springfield, Mass.
Factory Buckets, Tubs, Tanks—
(See Buckets, Tubs, Tanks.)
Factory Ventilating—
(See Ventilating System, Balanced.)
Family Grindstones, Scales—
(See Grindstones, Scales.)
Fan Motors, Electric—
(See Motors, Electric Fan.)
Fancy Chains—
(See Chains, Wagon and Fancy.)
Fans—
American Blower Co., Detroit, Mich.
Boston Blower Co., Hyde Park, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Exeter Machine Works, Exeter, N. H.
Green Fuel Economizer Co., Matteawan, N. Y.
Howard & Morse, 45 Fulton St., N. Y.
Humphrey Machine Co., Keene, N. H.
H. F. Sturtevant Co., Boston, Mass.
Whitlock Coil Pipe Co., Hartford, Ct.
MERCHANTS
Fairbanks Co., 416 Broome St., New York.
Power Specialty Co., 111 Broadway, New York.
Wickes Bros., Saginaw, Mich.
C. C. Wormer Machinery Co., Detroit, Mich.
Fans, Electric—
American Blower Co., Detroit, Mich.
Boston Blower Co., Hyde Park, Mass.
Buffalo Forge Co., Buffalo, N. Y.
General Electric Co., Schenectady, N. Y.
Green Fuel Economizer Co., Matteawan, N. Y.
Howard & Morse, 45 Fulton St., N. Y.
Sprague Electric Co., 527 W. 34th St., New York.
R. F. Sturtevant Co., Boston, Mass.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
Fans, Exhaust—
American Blower Co., Detroit, Mich.
Boston Blower Co., Hyde Park, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Case Mfg. Co., Columbus, O.
Champion Blower & Forge Co., Lancaster, Pa.
Geo. F. Clark Co., Windsor Locks, Ct.
Exeter Machine Works, Exeter, N. H.
Green Fuel Economizer Co., Y.
N. Y.

- Howard & Morse, 45 Fulton St., N. Y.
Humphrey Machine Co., Keene, N. H.
 Stirling Blower & Pipe Mfg. Co., Hartford, Ct.
B. F. Sturtevant Co., Boston, Mass.
 B. F. Sturtevant Co., Boston, Mass.
MERCHANTS.
 Baird Machinery Co., Pittsburgh, Pa.
 Fairbanks Co., 416 Broome St., New York.
 S. Obermayer Co., Cincinnati, O.
 Patterson, Gottfried & Hunter, Ltd., 148-150 Centre St., New York.
 Power Specialty Co., 111 Broadway, New York.
 Jacob Ullman, Buffalo, N. Y.
 Wickes Bros., Saginaw, Mich.
 C. C. Wormer Machinery Co., Detroit, Mich.
Fans, Fly—
 Bridgeport Brass Co., 253 Broadway, New York.
Fans, Steam—
 B. F. Sturtevant Co., Hyde Park, Mass.
Farm Bells, Sleds—
 (See Bells, Sleds.)
Farriers' Knives—
 (See Knives, Farrier.)
Farriers' Tools—
 (See Tools, Farrier.)
Fastener Punches—
 (See Punches, Eyelet and Fastener.)
Fasteners and Hinges, Box—
 (See Hinges and Fasteners.)
Fasteners, Basement Window—
 Caldwell Mfg. Co., Rochester, N. Y.
Fasteners, Bestead—
 Pleuger & Henger Mfg. Co., St. Louis, Mo.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
 Susquehanna Casting Co., Wrightsville, Pa.
 Wrightsville Hardware Co., Wrightsville, Pa.
Fasteners, Belt—
 Billings & Spencer Co., Hartford, Ct.
 Bristol Co., Waterbury, Ct.
 Main Belting Co., 1219 Carpenter St., Philadelphia, Pa.
 Sawyer Belt Hook Co., 296 Broadway, N. Y.
 W. O. Talcott, Providence, R. I.
 Upon Nut Co., Cleveland, O.
Fasteners, Blind—
 Charles Parker Co., Meriden, Ct.
 Stanley Works, New Britain, Ct.
 Susquehanna Casting Co., Wrightsville, Pa.
 W. & J. Tiebout, 118 Chambers St., N. Y.
 Wrightsville Hardware Co., Wrightsville, Pa.
Fasteners, Box and Tub—
 Cary Mfg. Co., 19-21 Roosevelt St., N. Y.
Fasteners, Casement—
 Caldwell Mfg. Co., Rochester, N. Y.
 H. B. Ives Co., New Haven, Ct.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Fasteners, Collar Window—
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Fasteners, Chain Door—
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
 Yale & Towne Mfg. Co., 9-15 Murray St., New York.
Fasteners, Conductor—
 Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
 Berger Mfg. Co., Canton, O.
 Iwan Bros., Streator, Ill.
Fasteners, Cuff, Scarf, &c.—
 American Ring Co., Waterbury, Ct.
Fasteners, Horse Blanket Snap—
 Ashtabula Mfg. Co., Ashtabula, O.
Fasteners, Ice Box, Lever—
 Reading Hardware Co., Reading, Pa.
Fasteners, Rope and Strap—
 Broderick & Bascom Rope Co., St. Louis.
 A. Leachen & Sons Rope Co., St. Louis.
Fasteners, Sash—
 (See Locks, Sash.)
Fasteners, Screen and Storm Sash—
 Parker Wire Goods Co., Worcester, Mass.
 Rheux Mfg. Co., Milwaukee, Wis.
 Stanley Works, New Britain, Ct.
 Wire Goods Co., Worcester, Mass.
 Walter W. Woodruff & Sons Co., Mount Carmel, Ct.
Fasteners, Stair Carpet—
 Ashtabula Mfg. Co., Ashtabula, O.
Fasteners, Tag—
 E. H. Titchener & Co., Binghamton, N. Y.
Faucets, Bottling—
 Landers, Frary & Clark, New Britain, Ct.
Faucets, Brass—
 John H. Graham & Co., 113 Chambers St., New York.
 Landers, Frary & Clark, New Britain, Ct.
 H. Mueller Mfg. Co., Decatur, Ill.
 Walworth Mfg. Co., Boston, Mass.
Faucets, Can—
 Landers, Frary & Clark, New Britain, Ct.
 Taylor & Boggis Foundry Co., Cleveland, O.
Faucets, Iron—
 McNab & Harlin Mfg. Co., 50-56 John St., New York.
 North Bros. Mfg. Co., Philadelphia, Pa.
 Union Mfg. Co., New Britain, Ct.
 Walworth Mfg. Co., Boston, Mass.
Faucets, Measuring—
 Enterprise Mfg. Co., Philadelphia, Pa.
Faucets, Suction—
 Enterprise Mfg. Co., Philadelphia, Pa.
Faucets, Wood—
 Boston & Lockport Block Co., Boston.
 E. B. Bates & Sons, 45-47 John St., N. Y.
 Pleuger & Henger Mfg. Co., St. Louis, Mo.
 John Sommer's Son, Newark, N. J.
Feed and Ensilage Cutters—
 (See Cutters, Feed.)
Feed Mangers—
 (See Mangers, Feed.)
Feed Mills, Pumps, Boiler—
 (See Mills, Pumps, Boiler Feed.)
Feed Water Heaters, Purifiers, Regulators—
 (See Heaters, Purifiers, Regulators.)
Feed Wire, Bare and Insulated—
 (See Wires, Electrical.)
Feeders, Automatic Furnace, for Shavings—
 Stirling Blower & Pipe Mfg. Co., Hartford, Ct.

Feeders, Boiler—

(See Boiler Feeders.)

Feeders, Stock, Time—

Gray Iron Foundry Co., Reading, Pa.

Feeds, Steam, Saw Mill—

Pawling & Harnischfeger, Milwaukee, Wis.

Soule Steam Feed Works, Meridian, Miss.

Felloe and Turning Webs—

(See Webs, Turning, Felloe, &c.)

Felloe Plates—

(See Plates, Felloe.)

Felting, Hair—

Bader, Adamson & Co., 730 Market St., Philadelphia, Pa.

Felts, Asphalt Saturated—

National Roofing Co., Tonawanda, N. Y.

Stowell Mfg. Co., Jersey City, N. J.

Fence and Wire Stretchers—

(See Stretchers, Fence and Wire.)

Fence Machines—

Franklin Mfg. Co., New Haven, Ct.

Hofer Mfg. Co., Freeport, Ill.

Fence Machines, Wire—

Franklin Mfg. Co., New Haven, Ct.

Fence Posts (See Posts.)

Fence Wire—

(See Wire, Iron and Steel, Market, Fence, Stone, &c.)

Fencing, Gates, &c.—

Adair's Steel & Wire Works, Joliet, Ill.

Chester B. Albree Iron Works Co., Allegheny, Pa.

Anchor Post Iron Works, 41 Park Row, New York.

Belmont Iron Works, Inc., Philadelphia.

Buffalo Wire Works Co., Buffalo, N. Y.

Chesapeake Iron Works, Baltimore, Md.

Clinton Wire Cloth Co., Clinton, Mass.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

De Kalb Fence Co., De Kalb, Ill.

Dillon-Griswold Wire Co., Sterling, Ill.

Enterprise Foundry & Fence Co., Indianapolis, Ind.

Estey Wire Works Co., 59 Fulton St., New York.

Gilbert & Bennett Mfg. Co., 27 Broadway, New York.

Glen Mfg. Co., Ellwood City, Pa.

Grand Crossing Tack Co., Grand Crossing, Ill.

Howard & Morse, 45 Fulton St., N. Y.

W. N. Kratzer & Co., Pittsburgh, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Mast, Fos & Co., Springfield, O.

National Iron & Wire Co., Cleveland, O.

National Wire Corporation, New Haven, Ct.

H. O. Nelsen Iron Works, Knoxville, Tenn.

New Jersey Wire Cloth Co., Trenton, N. J.

Ohio Structural Iron Co., Sandusky, O.

Pittsburgh Steel Co., Pittsburgh, Pa.

Spencer Wire Co., Worcester, Mass.

Stewart Iron Works Co., Cincinnati, O.

Van Dorn Iron Works Co., Cleveland, O.

Wright Wire Co., Worcester, Mass.

Fencing, Poultry—

Dillon-Griswold Wire Co., Sterling, Ill.

National Wire Corporation, New Haven, Ct.

New Jersey Wire Cloth Co., Trenton, N. J.

Fender Nails—

(See Nails, Fender.)

Fenders and Dashes—

(See Dashes and Fenders.)

Fenders and Tips, Rubber—

(See Tips, Fenders, Rubber.)

Fenders, Automobile—

(See Automobile Fenders.)

Fenders, Fire Place—

Buffalo Wire Works Co., Buffalo, N. Y.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Estey Wire Works Co., 59 Fulton St., New York.

Howard & Morse, 45 Fulton St., N. Y.

Murdock-Shaw Co., Boston, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

John P. Smith & Co., New Haven, Ct.

Wright Wire Co., Worcester, Mass.

Fenders, Furniture—

Elastic Tip Co., Boston, Mass.

Fenders, Lawn Mower—

Philadelphia Lawn Mower Co., 3100-3109 Chestnut St., Philadelphia, Pa.

Ferro-Aluminum—

Geo. G. Blackwell, Sons & Co., Liverpool, England.

Pittsburgh Reduction Co., Pittsburgh, Pa.

MERCHANTS.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Ferro-Chrome—

Geo. G. Blackwell, Sons & Co., Liverpool, England.

Pittsburgh Reduction Co., Pittsburgh, Pa.

Roeseler & Haaslach Chemical Co., 100 William St., New York.

MERCHANTS.

Reed F. Blair & Co., Pittsburgh, Pa.

C. W. Leavitt & Co., 220 Broadway, New York.

Frank Samuel, Harrison Bldg., Philadelphia, Pa.

Ferro-Manganese—

Geo. G. Blackwell, Sons & Co., The Albany, Liverpool, England.

Carnegie Steel Co., Pittsburgh, Pa.

Roeseler & Haaslach Chemical Co., 100 William St., New York.

MERCHANTS.

Reed F. Blair & Co., Pittsburgh, Pa.

Caine & Plitt, Real Estate Trust Bldg., Philadelphia, Pa.

J. H. Hillman & Son, Pittsburgh, Pa.

C. W. Leavitt & Co., 220 Broadway, New York.

James Lee & Co., 76 William St., New York.

J. W. Paxson Co., Philadelphia, Pa.

Rogers, Brown & Co., Cincinnati, O.

Frank Samuel, Harrison Bldg., Philadelphia, Pa.

W. P. Snyder & Co., Pittsburgh, Pa.

Ferro-Molybdenum—

Geo. G. Blackwell, Sons & Co., Liverpool, England.

Roeseler & Haaslach Chemical Co., 100 William St., New York.

MERCHANTS.

Reed F. Blair & Co., Pittsburgh, Pa.

Ferro-Nickel—

Geo. G. Blackwell, Sons & Co., Liverpool, England.

Roeseler & Haaslach Chemical Co., 100 William St., New York.

Ferro-Phosphorus—

O. W. Leavitt & Co., 220 Broadway, New York

Ferro-Silicon—

Geo. G. Blackwell, Sons & Co., Liverpool, England.
Carnegie Steel Co., Pittsburgh, Pa.

MERCHANTS.

Reed F. Blair & Co., Pittsburgh, Pa.
J. Fenne Brooks & Co., Boston, Mass.
J. H. Hillman & Son, Pittsburgh, Pa.
C. W. Leavitt & Co., 220 Broadway, New York

James Lee & Co., 76 William St., New York

Rogers, Brown & Co., Cincinnati, O.
Frank Samuel, Harrison Bldg., Philadelphia, Pa.

Charles G. Shepard, Buffalo, N. Y.

Ferro-Silicon, Electrolytic—
Roessler & Hasselacher Chemical Co., 100 William St., New York

Ferro-Sodium—
Geo. G. Blackwell, Sons & Co., Liverpool, England.

Ferro-Tungsten—
Beaver Metallurgical Co., Beaver Falls, Pa.

Geo. G. Blackwell, Sons & Co., Liverpool, England.

Roessler & Hasselacher Chemical Co., 100 William St., New York.

MERCHANTS.

Reed F. Blair & Co., Pittsburgh, Pa.

Ferro-Vanadium—
Roessler & Hasselacher Chemical Co., 100 William St., New York

Ferrules—
Bridgeport Brass Co., 253 Broadway, New York

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

McNab & Harlin Mfg. Co., 56 John St., New York.

H. A. Matthews Mfg. Co., Seymour, Ct.
H. Mueller Mfg. Co., Decatur, Ill.

National Tube Co., Pittsburgh, Pa.
Pratt Chuck Co., Frankfort, N. Y.

Arthur T. Rutter & Co., 256 Broadway, New York

Scovill Mfg. Co., Waterbury, Ct.
Union Hardware Co., Torrington, Ct.

Waterbury Brass Co., Waterbury, Ct.
Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

Ferrules and Eyelets—
American Ring Co., Waterbury, Ct.

Ferrules, Boiler Flue—
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York

Ferrules, Condenser Tube—
E. B. Estes & Sons, 45-47 John St., N. Y.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York

Ferrules, Trap, Screw—
H. Mueller Mfg. Co., Decatur, Ill.

Fertilizer Distributors—
Bateman Mfg. Co., Grenloch, N. J.

Fertilizer Machinery—
C. O. Bartlett & Snow Co., Cleveland, O.

Jeffrey Mfg. Co., Columbus, O.
Poole Engineering & Machine Co., Baltimore, Md.

Field Glasses—
(See Glasses, Opera and Field.)

Field Hoes—
(See Hoes, Garden, Field, Mortar.)

Fifth Wheels—

(See Wheels, Fifth.)

Figured Brass—

(See Brass.)

Figures and Letters—

(See Letters, Figures, &c.)

File, Chisel and Awl Handles—

(See Handles, Chisel, File, Awl, &c.)

File Cleaners—

(See Cleaners, File.)

File Holders—

(See Handles, Detachable Tool.)

File Machinery—

Hess & Machine Works, 25th & Callowhill Sts., Philadelphia, Pa.

Files, Saw—

Nicholson File Co., Providence, R. I.
Oliver Machinery Co., Grand Rapids, Mich.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Files and Rasps—

G. & H. Barnett Co., Philadelphia, Pa.
Carver File Co., Philadelphia, Pa.

Henry Disston & Sons, Philadelphia, Pa.
Heller Bros. Co., Newark, N. J.

Liveright Bros., 20th St. & Allegheny Ave., Philadelphia, Pa.

McCaffrey File Co., 5th & Berk Sts., Philadelphia, Pa.

Nicholson File Co., Providence, R. I.
E. P. Reichhelm & Co., 23 John St., New York

Stokes Bros. Mfg. Co., Freehold, N. J.
Whitman & Barnes Mfg. Co., Chicago

Files and Rasps, Emery and Corundum—
Chicago Wheel & Mfg. Co., 39 W. Randolph St., Chicago, Ill.

Files, Bill, Letter, &c.—
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Columbia Grey Iron Co., Columbia, Pa.

Files, Dentists—
Carver File Co., Philadelphia, Pa.

Files, Jewelers—
G. & H. Barnett Co., Philadelphia, Pa.

Carver File Co., Philadelphia, Pa.
Henry Disston & Sons, Philadelphia, Pa.

Heller Bros. Co., Newark, N. J.
Mayer & Co., 20th St. & Allegheny Ave., Philadelphia, Pa.

McCaffrey File Co., 5th & Berk Sts., Philadelphia, Pa.

Nicholson File Co., Providence, R. I.
E. P. Reichhelm & Co., 23 John St., New York

Files, Manicure—
Carver File Co., Philadelphia, Pa.

Henry Disston & Sons, Philadelphia, Pa.
Liveright Bros., 20th St. & Allegheny Ave., Philadelphia, Pa.

McCaffrey File Co., 5th & Berk Sts., Philadelphia, Pa.

Nicholson File Co., Providence, R. I.
A. L. Silberstein, 459-461 Broadway, New York

Files, Paper—
Arcade Mfg. Co., Freeport, Ill.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Parker Wire Goods Co., Worcester, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York

Wire Goods Co., Worcester, Mass.

Wrightsville Hardware Co., Wrightsville, Pa.

Files, Planer Knife—

G. & H. Barnett Co., Philadelphia, Pa.
Carver File Co., Philadelphia, Pa.
Chicago Wheel & Mfg. Co., 39 W. Randolph St., Chicago, Ill.
Henry Disston & Sons, Philadelphia, Pa.
Liveright Bros., 20th St. & Allegheny Ave., Philadelphia, Pa.
McCaffrey File Co., 5th & Berk Sts., Philadelphia, Pa.
Nicholson File Co., Providence, R. I.
Simonds Mfg. Co., Fitchburg, Mass.

Filing Machines, Band Saw—
(See Setting and Filing Machines, Band Saw.)

Filing Machines, Bench—

Henry & Wright Mfg. Co., Hartford, Ct.

Filing Machines, Die—

Grant Mfg. & Machine Co., Bridgeport, Ct.

Fillers, Bag—

John Chatillon & Sons, 85-93 Cliff St., New York.

Fillers, Iron—

Clark Cast Steel Cement Co., Shelton, Ct.
S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Fillers, Lamp—

Johnson Mfg. Co., Urbana, O.

Fillers, Nail Bin—

J. D. Warren Mfg. Co., Chicago, Ill.

Fillers, Wire Rope—

Broderick & Bascom Rope Co., St. Louis.
A. Leechen & Sons Rope Co., St. Louis.

Fillers, Wood—

New Castle Paint & Varnish Co., New Castle, Pa.

Fillets, Leather—

A. G. Butler, 284-286 Pearl St., New York.
Cleveland Galvanizing Works, Cleveland.
S. Obermayer Co., Cincinnati, O.
Oliver Machinery Co., Grand Rapids, Mich.

Fillets, Metal—

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Fillets, Wood—

A. G. Butler, 284-286 Pearl St., New York.
Cleveland Galvanizing Works, Cleveland.
Oliver Machinery Co., Grand Rapids, Mich.

Filter Paper—

Elmer & Amend, 205 Third Ave., New York.

Filter Presses—

(See Presses, Filter.)

Filters, Oil and Grease—

Burt Mfg. Co., Akron, O.

Filters, Water—

Cleveland Stamping & Tool Co., Cleveland, O.
Charles Mundt & Sons, 441-447 Pearl St., New York.

Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

Wm. B. Scaife & Sons, Pittsburgh, Pa.

Finger Bars, Cold Rolled—

Jones & Laughlin Steel Co., Pittsburgh.

Fingers, Grain Cradle—

American Fork & Hoe Co., Cleveland, O.

Finials and Vanes, Metal—

Berger Mfg. Co., Canton, O.

G. Drouve Co., Bridgeport, Ct.

Edwards Mfg. Co., Cincinnati, O.

W. N. Kratzer & Co., Pittsburgh, Pa.
Merchant & Evans Co., 517 Arch St., Philadelphia, Pa.

Finials, Iron—

(See Iron, Brass and Bronze, Ornamental.)

Finishing Nails—

(See Nails, Brads, Nails, &c.)

Finishing, Sheer and Swiss—

I. E. Palmer, Middletown, Ct.

Firearms—

(See Guns, Pistols, Revolvers, &c.)

Fire Backs—

(See Stove Repairs, Extension Grates, Backs, &c.)

Fire Bells, Brick—

(See Bells, Brick Fire.)

Fire Boat Machinery—

Charles F. Elmes Engineering Works, 253 Fulton St., Chicago, Ill.

Fire Buckets, Clay, &c.—

(See Buckets, Clay, &c.)

Fire Door and Shutter Hardware—

Allith Mfg. Co., 122-124 S. Green St., Chicago, Ill.

Chesapeake Iron Works, Baltimore, Md.

Lane Bros. Co., Poughkeepsie, N. Y.

Richard Mfg. Co., Aurora, Ill.

Fire Doors—

(See Doors and Shutters, Iron and Steel.)

Fire Escapes, Extinguishers—

(See Escapes, Extinguishers.)

Fire Pipe Fenders, Fire Place—

(See Fenders, Fire Place.)

Fire Pots, Tinner's—

(See Furnaces, Plumbers' and Tinner's.)

Fire Proof Building Material—

(See Building Material, Fire Proof.)

Fire Proof Vaults—

(See Vaults, Fire and Burglar Proof.)

Fire Sets—

(See Shovels, Tongs, Pokers, Fire Sets, &c.)

Firemen's Trumpets—

(See Trumpets, Firemen's, Silver Plated.)

Fish Plates, Sealers, Stringers, Traps—

(See Plates, Sealers, Stringers, Traps.)

Fishing Reels—

(See Reels, Fishing.)

Fishing Tackle—

Clark, Horrocks Co., Utica, N. Y.
Dane, Stoddard & Co., Boston, Mass.
Enterprise Mfg. Co., Akron, O.
Andrew B. Hendryx Co., New Haven, Ct.

Fishing Tackle Boxes—

(See Boxes, Fishing Tackle.)

Fitters, Pipe—

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Fittings, Ammonia—

Stanley G. Flagg & Co., Philadelphia, Pa.
Lunkenheimer Co., Cincinnati, O.

H. Mueller Mfg. Co., Decatur, Ill.

Vilter Mfg. Co., Milwaukee, Wis.

J. H. Williams & Co., Brooklyn, N. Y.

Fittings, Bicycle—

Crosby Co., Buffalo, N. Y.

Fittings, Flange, Pipe—

American Spiral Pipe Works, 1173-12

Paulina St., Chicago, Ill.

- McNab & Harlin Mfg. Co., 56 John St., New York.
 Charles Millar & Son Co., Utica, N. Y.
 Walworth Mfg. Co., Boston, Mass.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
- Fittings, Furnace—**
 S. M. Howes Co., Boston, Mass.
- Fittings, Furnace, Warm Air—**
 Schreiber & Conchar Mfg. Co., Dubuque, Ia.
- Fittings, Hydraulic—**
 Chas. F. Elmes Engineering Works, Cor. Morgan and Fulton Sts., Chicago, Ill.
 McNab & Harlin Mfg. Co., 50-56 John St., New York.
- Fittings, Malleable Iron Pipe—**
 Standard Car & Foundry Co., Pittsburgh.
- Fittings, Marine—**
 E. W. Vanduzen Co., Cincinnati O.
- Fittings, Pipe—**
 American Spiral Pipe Works, 1173-1201 S. Paulina St., Chicago, Ill.
 Chambersburg Engineering Co., Chambersburg, Pa.
 Dimmick Pipe Co., Birmingham, Ala.
 Charles F. Elmes Engineering Works, 253 Fulton St., Chicago, Ill.
 Fairbanks Co., 416 Broome St., New York.
 Stanley G. Flagg & Co., Philadelphia, Pa.
 Humphries Mfg. Co., Mansfield, O.
 Jarecki Mfg. Co., Erie, Pa.
 Kennedy Valve Mfg. Co., 68 Beekman St., New York.
 McNab & Harlin Mfg. Co., 56 John St., New York.
 Manning, Maxwell & Moore, 85 Liberty St., New York.
 Charles Millar & Son Co., Utica, N. Y.
 H. Mueller Mfg. Co., Decatur, Ill.
 Ohio Brass Co., Mansfield, O.
 Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
 Wm. Powell Co., Cincinnati, O.
 Standard Car & Foundry Co., Pittsburgh.
 Walworth Mfg. Co., Boston, Mass.
 Watson-Stillman Co., 46 Dey St., New York.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
- Fittings, Soil Pipe Adjustable—**
 Vanderman Plumbing & Heating Co., Willimantic, Ct.
- Fittings, Steam—**
 Charles F. Elmes Engineering Works, 253 Fulton St., Chicago, Ill.
 Fairbanks Co., 416 Broome St., New York.
 U. T. Hungerford Brass & Copper Co., 497-505 1st St., New York.
 Jarecki Mfg. Co., Erie, Pa.
 Lankenheimer Co., Cincinnati, O.
 McNab & Harlin Mfg. Co., 56 John St., New York.
 Charles Millar & Son Co., Utica, N. Y.
 Ohio Brass Co., Mansfield, O.
 Wm. Powell Co., Cincinnati, O.
 Walworth Mfg. Co., Boston, Mass.
 Worcester Steel Foundry Co., Worcester, Mass.
- Fittings, Tramway—**
 Broderick & Bascom Rope Co., St. Louis.
 A. Leachen & Sons Rope Co., St. Louis.
- Fittings, Wire Rope—**
 Broderick & Bascom Rope Co., St. Louis.
 A. Leachen & Sons Rope Co., St. Louis.
 National Wire Corporation, New Haven, Ct.
- Trenton Iron Co., Trenton, N. J.
 Williamsport Wire Rope Co., Williamsport, Pa.
- Fixtures and Furniture, Bank—**
 (See Bank Fixtures and Furniture.)
- Fixtures, Bathroom—**
 (See Bathroom Toilet Specialties.)
- Fixtures, Curtain Rod—**
 (See Curtain Rod Fixtures.)
- Fixtures, Fire Door—**
 (See Fire Door and Shutter Hardware.)
- Fixtures, Grindstone, Stable, Store—**
 (See Grindstone, Stable, Store.)
- Fixtures, Lightning Rod—**
 (See Lightning Rod Fixtures.)
- Flag Pole Sockets—**
 (See Sockets, Flag Pole.)
- Flanges, Alcohol—**
 New York Stamping Co., Brooklyn, N. Y.
- Flangstaff Holders—**
 (See Holders, Flangstaff.)
- Flange Couplings—**
 (See Couplings, Flange.)
- Flange Facing Machines—**
 Detrick & Harvey Machine Co., Baltimore, Md.
 Niles-Bement-Pond Co., 111 Broadway, New York.
- Flanges, Ammonia—**
 Indianapolis Drop Forging Co., Indianapolis, Ind.
- Flanges, Forged Steel—**
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
- Flanges, Weldless, Steel—**
 Chrome Steel Works, Chrome, N. J.
 E. Keeler Co., Williamsport, Pa.
 Pressed Steel Tank Co., Milwaukee, Wis.
 Riter-Conley Mfg. Co., Pittsburgh, Pa.
- Flanging Clamps—**
 (See Clamps, Flanging.)
- Flanging Machines—**
 Alliance Machine Co., Alliance, O.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Niles-Bement-Pond Co., 111 Broadway, New York.
- Flasks, Foundry Snap—**
 S. Obermayer Co., Cincinnati, O.
 J. D. Smith Foundry Supply Co., Cleveland, O.
- Flasks, Powder—**
 Waterbury Brass Co., Waterbury, Ct.
- Flasks, Steel—**
 Meehan Boiler & Construction Co., Lowellville, O.
- S. Obermayer Co., Cincinnati, O.
- Flat Link Chains—**
 (See Chains, Flat Link.)
- Flat Top Desks—**
 (See Desks, Roll and Flat Top.)
- Flexible Hangers—**
 (See Hangers, Hinge.)
- Flexible Shafts—**
 (See Shafts, Flexible.)

Flies, Artificial—
Clark, Horrocks Co., Utica, N. Y.
Enterprise Mfg. Co., Akron, O.

Floats, Copper Ball—
Edwards Mfg. Co., Cincinnati, O.
McNab & Harlin Mfg. Co., 56 John St.,
New York
Naugatuck Mfg. Co., Naugatuck, Ct.

Floats, Counter—
Louis Sacks, Newark, N. J.
Floats, Fish Line—
Clark, Horrocks Co., Utica, N. Y.
Enterprise Mfg. Co., Akron, O.
Floor and Base Knobs—
(See Knobs, Base and Floor.)

Floor Bars—
(See Chisels, Floor and Ripping.)
Floor Chisels, Stands—
(See Chisels, Stands.)

Flooring, Bridge—
American Bridge Co. of New York, 42
Broadway, New York.
Youngstown Iron & Steel Roofing Co.,
Youngstown, O.

Flooring, Fire Proof—
Youngstown Iron & Steel Roofing Co.,
Youngstown, O.

Floors, Wire Cloth—
Clinton Wire Cloth Co., Clinton, Mass.
Howard & Morse, 45 Fulton St., N. Y.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Michigan Wire Cloth Co., Detroit, Mich.
Wright Wire Co., Worcester, Mass.

Floral Designs—
Wright Wire Co., Worcester, Mass.
Flour Mill Machinery—
Case Mfg. Co., Columbus, O.
Poole Engineering & Machine Co., Balti-
more, Md.

**Flour Sieves, Sifters, Test-
ers—**
(See Sieves, Sifters, Testers.)

Flower Guards, Pickers—
(See Guards, Pickers.)

**Flower Pot Brackets,
Stands—**
(See Brackets, Stands.)

Flue Cleaners, Ventilators—
(See Cleaners, Ventilators.)

Flumes, Steel—
Franklin Boiler Works Co., Troy, N. Y.
E. Keeler Co., Williamsport, Pa.

Flour Spar—
J. Tatnall Lea & Co., 19 So. 12th St.,
Philadelphia, Pa.

S. Obermayer Co., Cincinnati, O.

Flush Pipe, Rings—
(See Pipes, Rings.)

Fluted Drills—
(See Drills, Fluted.)

Fluters—
North Bros. Mfg. Co., Philadelphia, Pa.

Fly Fans, Killers, Traps—
(See Fans, Killers, Traps.)

Fly Wheels—
H. W. Caldwell & Son Co., Western
Ave. & 17th St., Chicago, Ill.
Case Mfg. Co., Columbus, O.
Geo. V. Cresson Co., 18th St. & Alle-
gheny Ave., Philadelphia, Pa.
Dodge Mfg. Co., Mishawaka, Ind.
Falls Rivet & Machine Co., Cuyahoga
Falls, O.

**Jones & Laughlin Steel Co., Pittsburgh,
Pennsylvania Engineering Works, New
Castle, Pa.**

Philadelphia Roll & Machine Co., 23d St.
and Washington Ave., Philadelphia.
Poole Engineering & Machine Co., Balti-
more, Md.
Wm. Tod Co., Youngstown, O.
Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.
Wickes Bros., Saginaw, Mich.

MERCHANTS.
McDowell & Co., Allegheny, Pa.

Fodder Shredders, Dry—
(See Shredders, Dry Fodder.)

Foil, Platinum—
Baker & Co., Inc., Newark, N. J.
J. Bishop & Co., Malvern, Pa.

Folding Bed Hinges—
(See Hinges, Folding Bed.)

Folding Chairs—
(See Chairs, Folding.)

Folding Gates—
(See Gates, Extension.)

Folding Machinery, Paner—
Chambers Bros. Co., 52d St. below Lan-
caster Ave., Philadelphia, Pa.
Chas. Leffler & Co., Brooklyn, N. Y.

Foot Powers—
(See Powers, Foot.)

**Forcing Machines, Hand or
Power—**
Niles-Bement-Pond Co., 111 Broadway,
New York.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

Forged Bolts, Unions—
(See Bolts, Unions.)

Forged Steel Axles, Car—
(See Axles, Forged Steel.)

Forges—
Acme Machinery Co., Cleveland, O.
American Gas Furnace Co., 23 John St.,
New York.

Beaudry & Co., Boston, Mass.
Billings & Spencer Co., Hartford, Ct.
Boston Blower Co., Hyde Park, Mass.
Boynton & Plummer, Worcester, Mass.
C. C. Bradley & Son, Syracuse, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancas-
ter, Pa.

**Chicago Pneumatic Tool Co., Fisher
Bldg., Chicago, Ill.**

**Chicago Wheel & Mfg. Co., 39-45 W. Ran-
dolph St., Chicago, Ill.**

**Ingersoll-Rand Co., 11 Broadway, New
York.**

**Kinsley Iron & Machine Co., Canton,
Mass.**

Merrill Bros., Brooklyn, N. Y.

Minor & Peck Mfg. Co., New Haven, Ct.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

Silver Mfg. Co., Salem, O.
B. F. Sturtevant Co., Boston, Mass.

MERCHANTS.
Geo. E. Affleck, 109 Liberty St., N. Y.

**Carlin Machinery & Supply Co., Inc.,
Allegheny, Pa.**

**J. H. Dawson Machinery Co., 39-41 S.
Canal St., Chicago, Ill.**

**Fairbanks Co., 416 Broome St., New York.
Hill, Clarke & Co., Boston, Mass.**

**Patterson, Gottfried & Hunter, Ltd., 146-
150 Centre St., New York.**

H. A. Rogers Co., 19 John St., New York.

**Joseph T. Ryerson & Son, 18-21 Milwa-
kee Ave., Chicago, Ill.**

**Scully Steel & Iron Co., Haled
Wayman Sts., Chicago, Ill.**

**Thornton Machinery Co., Provi-
dence, R. I.**

C. O. Wormer Machinery

Forges, Gas—

American Gas Furnace Co., 23 John St., New York.

Ingersoll-Rand Co., 11 Broadway, New York.

Forging and Bending Machines—

E. W. Bliss Co., Brooklyn, N. Y.

National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

Watson-Stillman Co., 46 Dey St., N. Y.

Forging Machines—

Acme Machinery Co., Cleveland, O.

Adriance Machine Works, Brooklyn, N. Y.

Ajax Mfg. Co., Cleveland, O.

Beaudry & Co., Boston, Mass.

Billings & Spencer Co., Hartford, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

National Machinery Co., Tiffin, O.

Scranton & Co., New Haven, Ct.

C. E. Sutton Co., Toledo, O.

Williams, White & Co., Moline, Ill.

MERCHANTS.

J. H. Dawson Machinery Co., 39-41 S.

Canal St., Chicago, Ill.

Marshall & Hushart Machinery Co., 62

S. Canal St., Chicago, Ill.

Joseph T. Ryerson & Son, 18-22 Milwaukee

Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and

Wayman Sts., Chicago, Ill.

Stiles-Morse Co., Western Union Bldg.,

Chicago, Ill.

Forging Machines, Bolt—

Acme Machinery Co., Cleveland, O.

Ajax Mfg. Co., Cleveland, O.

National Machinery Co., Tiffin, O.

Forging Machines, Hand or

Power—

Beaudry & Co., Boston, Mass.

Scranton & Co., New Haven, Ct.

Williams, White & Co., Moline, Ill.

Forging Machines, Nut—

Acme Machinery Co., Cleveland, O.

National Machinery Co., Tiffin, O.

Forging Machines, Sheet

Work—

Adriance Machine Works, Brooklyn, N. Y.

E. W. Bliss Co., Brooklyn, N. Y.

Consolidated Press & Tool Co., 96-100 N.

Clinton St., Chicago, Ill.

Forgings, Automobile—

Billings & Spencer Co., Hartford, Ct.

Chicago Drop Forge & Foundry Co.,

Kensington, Ill.

E. D. Clapp Mfg. Co., Auburn, N. Y.

Detroit Forging Co., Detroit, Mich.

Erie Forge Co., Erie, Pa.

Indianapolis Drop Forging Co., Indian-

apolis, Ind.

Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.

Page-Storms Drop Forge Co., Brightwood,

Mass.

Richmond Forgings Corporation, Rich-

mond, Va.

Strieby & Foote Co., Newark, N. J.

United Drop Forging Co., Springfield,

Mass.

Wm. B. Walter & Co., Marquette Bldg.,

Chicago, Ill.

Wyman & Gordon, Worcester, Mass.

Forgings, Bicycle—

Belden Machine Co., New Haven, Ct.

Billings & Spencer Co., Hartford, Ct.

Chicago Drop Forge & Foundry Co., Ken-

sington, Ill.

E. D. Clapp Mfg. Co., Auburn, N. Y.

Detroit Forging Co., Detroit, Mich.

Richard Eccles Co., Auburn, N. Y.

Erie Forge Co., Erie, Pa.

Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.

Page-Storms Drop Forge Co., Brightwood,

Mass.

Richmond Forgings Corporation, Rich-

mond, Vt.

M. Seward & Son Co., New Haven, Ct.

Strieby & Foote Co., Newark, N. J.

United Drop Forging Co., Springfield,

Mass.

J. H. Williams & Co., Brooklyn, N. Y.

Wyman & Gordon, Worcester, Mass.

Forgings, Bronze—

Billings & Spencer Co., Hartford, Ct.

Chicago Drop Forge & Foundry Co., Ken-

sington, Ill.

Detroit Forging Co., Detroit, Mich.

Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.

Lough-Scott Co., 26 Cortlandt St., New

York.

Page-Storms Drop Forge Co., Brightwood,

Mass.

Phosphor Bronze Smelting Co., Ltd.,

2200 Washington Ave., Philadelphia.

Richmond Forgings Corporation, Rich-

mond, Va.

J. H. Williams & Co., Brooklyn, N. Y.

Wyman & Gordon, Worcester, Mass.

Forgings, Car—

American Bridge Co. of New York, 42

Broadway, New York.

American Iron & Steel Mfg. Co., Lebanon,

Pa.

Block-Pollak Iron Co., Cincinnati, O.

Carnegie Steel Co., Pittsburgh, Pa.

Chicago Drop Forge & Foundry Co.,

Kensington, Ill.

Cleveland City Forge & Iron Co., Cleve-

land, O.

Detroit Forging Co., Detroit, Mich.

Erie Forge Co., Erie, Pa.

Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.

New Castle Forge & Bolt Co., New Cas-

tle, Pa.

Richmond Forgings Corporation, Rich-

mond, Va.

Solid Steel Tool & Forge Co., Tarentum,

Pa.

Transue & Williams Co., Alliance, O.

Wm. B. Walter & Co., Marquette Bldg.,

Chicago, Ill.

Forgings, Carriage—

Belden Machine Co., New Haven, Ct.

Billings & Spencer Co., Hartford, Ct.

C. C. Bradley & Son, Inc., Syracuse,

N. Y.

Chicago Drop Forge & Foundry Co., Ken-

sington, Ill.

E. D. Clapp Mfg. Co., Auburn, N. Y.

Cleveland City Forge & Iron Co., Cleve-

land, O.

Detroit Forging Co., Detroit, Mich.

Richard Eccles Co., Auburn, N. Y.

Kilborn & Bishop Co., New Haven, Ct.

Scranton Forging Co., Scranton, Pa.

M. Seward & Son Co., New Haven, Ct.

Strieby & Foote Co., Newark, N. J.

Wyman & Gordon, Worcester, Mass.

Forgings, Chrome Steel—

Chrome Steel Works, Chrome, N. J.

Forgings, Copper—

Billings & Spencer Co., Hartford, Ct.

Chicago Drop Forge & Foundry Co., Kensington, Ill.
 Detroit Forging Co., Detroit, Mich.
 Keystone Drop Forge Works, Chester, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 Homer F. Livermore, Boston, Mass.
 Page-Storms Drop Forge Co., Brightwood, Mass.
 Richmond Forgings Corporation, Richmond, Va.
 Strieby & Foote Co., Newark, N. J.
 Transue & Williams Co., Alliance, O.
 J. H. Williams & Co., Brooklyn, N. Y.
 Wyman & Gordon, Worcester, Mass.
Forgings, Drop—
 Chester B. Albrece Iron Works Co., Allegheny, Pa.
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Bates Drop Forge Co., Indianapolis, Ind.
 Belden Machine Co., New Haven, Ct.
 Billings & Spencer Co., Hartford, Ct.
 B. H. Brown & Co., New Haven, Ct.
 Canton Drop Forging & Mfg. Co., Canton, O.
 Chicago Drop Forge & Foundry Co., Kensington, Ill.
 E. D. Clapp Mfg. Co., Auburn, N. Y.
 Columbia Machine Works & Malleable Iron Co., Brooklyn, N. Y.
 Columbian Hardware Co., Cleveland, O.
 Detroit Forging Co., Detroit, Mich.
 Richard Eccles Co., Auburn, N. Y.
 Elcher Co., Alliance, O.
 Erie Forge Co., Erie, Pa.
 Samuel Hall's Sons, 229-233 W. 10th St., New York.
 Hay-Budden Mfg. Co., Brooklyn, N. Y.
 Helwig Mfg. Co., St. Paul, Minn.
 Indianapolis Drop Forging Co., Indianapolis, Ind.
 Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
 Keystone Drop Forge Works, Chester, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 M. Lanz & Sons, Pittsburgh, Pa.
 Homer F. Livermore, Boston, Mass.
 Lough-Scott Co., 26 Cortlandt St., New York.
 Marine Hardware & Equipment Co., So. Portland, Me.
 McDougall & Potter Co., 606-612 W. 55th St., New York.
 Milton Mfg. Co., Milton, Pa.
 New Castle Forge & Bolt Co., New Castle, Pa.
 O. K. Tool Holder Co., Shelton, Ct.
 Page-Storms Drop Forge Co., Brightwood, Mass.
 Phosphor Bronze Smelting Co., Ltd., 220 Washington Ave., Philadelphia.
 Rhode Island Tool Co., Providence, R. I.
 Richmond Forgings Corporation, Richmond, Va.
 Russell Economical Furnace Co., 42 W. Quincy St., Chicago, Ill.
 Scranton Forging Co., Scranton, Pa.
 M. Seward & Son Co., New Haven, Ct.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Solid Steel Tool & Forge Co., Tarentum, Pa.
 Strieby & Foote Co., Newark, N. J.
 Titusville Forge Co., Titusville, Pa.
 Transue & Williams Co., Alliance, O.
 Union Hardware Co., Torrington, Ct.
 United Drop Forging Co., Springfield, Mass.

Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
 J. H. Williams & Co., Brooklyn, N. Y.
 Wyman & Gordon, Worcester, Mass.
Forgings, Gear Blank—
 Richmond Forgings Corporation, Richmond, Va.
Forgings, Gun—
 Belden Machine Co., New Haven, Ct.
 Billings & Spencer Co., Hartford, Ct.
 Carnegie Steel Co., Pittsburgh, Pa.
 Chicago Drop Forge & Foundry Co., Kensington, Ill.
 E. D. Clapp Mfg. Co., Auburn, N. Y.
 Detroit Forging Co., Detroit, Mich.
 Keystone Drop Forge Works, Chester, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 J. H. Williams & Co., Brooklyn, N. Y.
 Wyman & Gordon, Worcester, Mass.
Forgings, Handle—
 Belden Machine Co., New Haven, Ct.
 Billings & Spencer Co., Hartford, Ct.
 Chicago Drop Forge & Foundry Co., Kensington, Ill.
 Detroit Forging Co., Detroit, Mich.
 Erie Forge Co., Erie, Pa.
 Keystone Drop Forge Works, Chester, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 J. H. Williams & Co., Brooklyn, N. Y.
 Wyman & Gordon, Worcester, Mass.
Forgings, Iron, Special—
 Chester B. Albrece Iron Works Co., Allegheny, Pa.
 Bates Drop Forge Co., Indianapolis, Ind.
 Belden Machine Co., New Haven, Ct.
 Billings & Spencer Co., Hartford, Ct.
 Block-Polak Iron Co., Cincinnati, O.
 Boston & Lockport Block Co., Boston.
 Browning Engineering Co., Cleveland, O.
 Canton Drop Forging & Mfg. Co., Canton, O.
 Carnegie Steel Co., Pittsburgh, Pa.
 Chattanooga Car & Foundry Co., Chattanooga, Tenn.
 Chicago Drop Forge & Foundry Co., Kensington, Ill.
 E. D. Clapp Mfg. Co., Auburn, N. Y.
 Cleveland City Forge & Iron Co., Cleveland, O.
 Columbia Machine Works & Malleable Iron Co., Brooklyn, N. Y.
 Detroit Forging Co., Detroit, Mich.
 Richard Eccles Co., Auburn, N. Y.
 Erie Forge Co., Erie, Pa.
 Ford & Donnelly, Kokomo, Ind.
 Fort Pitt Forge Co., Pittsburgh, Pa.
 Heppental Forge & Knife Co., Pittsburgh, Pa.
 Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
 Keystone Drop Forge Works, Chester, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 Lockhart Iron & Steel Co., Pittsburgh, Pa.
 Lough-Scott Co., 26 Cortlandt St., New York.
 McDougall & Potter Co., 606-612 W. 55th St., New York.
 New Castle Forge & Bolt Co., New Castle, Pa.
 O. K. Tool Holder Co., Shelton, Ct.
 Page-Storms Drop Forge Co., Brightwood, Mass.
 Pittsburgh Mfg. Co., Pittsburgh, Pa.
 Richmond Forgings Corporation, Richmond, Va.

- Wm. B. Scaife & Sons Co., Pittsburgh.
M. Seward & Son Co., New Haven, Ct.
Solid Steel Tool & Forge Co., Tarentum, Pa.
- Strieby & Foote Co., Newark, N. J.
Titusville Forge Co., Titusville, Pa.
William Tod Co., Youngstown, O.
Transue & Williams Co., Alliance, O.
United Drop Forging Co., Springfield, Mass.
- Forgings, Malleable—**
Russell Economical Furnace Co., 42 W. Quincy St., Chicago, Ill.
Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
J. H. Williams & Co., Brooklyn, N. Y.
Wyman & Gordon, Worcester, Mass.
- Forgings, Manganese Bronze—**
Billings & Spencer Co., Hartford, Ct.
Keystone Drop Forge Works, Chester, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia.
J. H. Williams & Co., Brooklyn, N. Y.
Wyman & Gordon, Worcester, Mass.
- Forgings, Marine, Machine, Railroad and Shaft—**
Chester B. Albree Iron Works Co., Allegheny, Pa.
Avery Stamping Co., Cleveland, O.
Bates Drop Forge Co., Indianapolis, Ind.
Reiden Machine Co., New Haven, Ct.
Billings & Spencer Co., Hartford, Ct.
Block-Pollak Iron Co., Cincinnati, O.
Braeburn Steel Co., Braeburn, Pa.
Canton Drop Forging & Mfg. Co., Canton, O.
Carnegie Steel Co., Pittsburgh, Pa.
Chattanooga Car & Foundry Co., Chattanooga, Tenn.
Chicago Drop Forge & Foundry Co., Kensington, Ill.
E. D. Clapp Mfg. Co., Auburn, N. Y.
Cleveland City Forge & Iron Co., Cleveland, O.
Detroit Forging Co., Detroit, Mich.
Erie Forge Co., Erie, Pa.
Fort Pitt Forge Co., Pittsburgh, Pa.
Hay-Budden Mfg. Co., Brooklyn, N. Y.
Heppenstall Forge & Knife Co., Pittsburgh, Pa.
Indianapolis Drop Forging Co., Indianapolis, Ind.
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
Keystone Drop Forge Works, Chester, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Lockhart Iron & Steel Co., Pittsburgh, Pa.
Lough-Scott Co., 25 Cortlandt St., New York.
Marine Hardware & Equipment Co., So. Portland, Me.
Otis Steel Co., Ltd., Cleveland, O.
Page-Storms Drop Forge Co., Brightwood, Mass.
Passaic Steel Co., Paterson, N. J.
Republic Iron & Steel Co., Chicago, Ill.
Richmond Forgings Corporation, Richmond, Va.
Wm. B. Scaife & Sons Co., Pittsburgh.
Strieby & Foote Co., Newark, N. J.
Tindel-Morris Co., Eddystone, Pa.
Titusville Forge Co., Titusville, Pa.
Transue & Williams Co., Alliance, O.
United Drop Forging Co., Springfield, Mass.
- Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.
Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
J. H. Williams & Co., Brooklyn, N. Y.
Wyman & Gordon, Worcester, Mass.
- Forgings, Sheave and Truck Wheel—**
Bates Drop Forge Co., Indianapolis, Ind.
Forgings, Steel—
Chester B. Albree Iron Works Co., Allegheny, Pa.
American Bridge Co. of New York, 42 Broadway, New York.
Baldwin Steel Co., 107 John St., N. Y.
Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
Bates Drop Forge Co., Indianapolis, Ind.
Belden Machine Co., New Haven, Ct.
Billings & Spencer Co., Hartford, Ct.
Block-Pollak Iron Co., Cincinnati, O.
Braeburn Steel Co., Braeburn, Pa.
Canton Drop Forging & Mfg. Co., Canton, O.
Carnegie Steel Co., Pittsburgh, Pa.
Chattanooga Car & Foundry Co., Chattanooga, Tenn.
Chicago Drop Forge & Foundry Co., Kensington, Ill.
Chrome Steel Works, Chrome, N. J.
E. D. Clapp Mfg. Co., Auburn, N. Y.
Cleveland City Forge & Iron Co., Cleveland, O.
Colonial Steel Co., Pittsburgh, Pa.
Detroit Forging Co., Detroit, Mich.
Richard Eccles Co., Auburn, N. Y.
Erie Forge Co., Erie, Pa.
Fort Pitt Forge Co., Pittsburgh, Pa.
Hay-Budden Mfg. Co., Brooklyn, N. Y.
Heppenstall Forge & Knife Co., Pittsburgh, Pa.
John Illingsworth Steel Co., Frankford, Philadelphia, Pa.
Indianapolis Drop Forging Co., Indianapolis, Ind.
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
Keystone Drop Forge Works, Chester, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Lockhart Iron & Steel Co., Pittsburgh, Pa.
Lough-Scott Co., 25 Cortlandt St., New York.
McInnes Steel Co., Corry, Pa.
Milton Mfg. Co., Milton, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.
Page-Storms Drop Forge Co., Brightwood, Mass.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Richmond Forgings Corporation, Richmond, Va.
Wm. B. Scaife & Sons Co., Pittsburgh.
M. Seward & Son Co., New Haven, Ct.
Solid Steel Tool & Forge Co., Tarentum, Pa.
Strieby & Foote Co., Newark, N. J.
Titusville Forge Co., Titusville, Pa.
William Tod Co., Youngstown, O.
Transue & Williams Co., Alliance, O.
United Drop Forging Co., Springfield, Mass.
- Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
J. H. Williams & Co., Brooklyn, N. Y.
A. P. Witteman & Co., 233-231 Cherry St., Philadelphia, Pa.
Wyman & Gordon, Worcester, Mass.

MERCHANTS.

Denman & Davis, 85 and 87 John St., New York.
 C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.
 Homer F. Livermore, Boston, Mass.
 Patriarche & Bell, 215 Pearl St., N. Y.
 Phillips-Laffitte Co., Pennsylvania Bldg., Philadelphia, Pa.
 Pilling & Crane, Girard Bldg., Philadelphia, Pa.
 Wheelock, Lovejoy & Co., 23 Cliff St., New York.
Forgings, Steel Bar—
 W. J. Clark Co., Salem, O.
Forgings, Steel, Special—
 Bates Drop Forge Co., Indianapolis, Ind.
 Billings & Spencer Co., Hartford, Ct.
 Block-Pollak Iron Co., Cincinnati, O.
 Canton Drop Forging & Mfg. Co., Canton, O.
 Carnegie Steel Co., Pittsburgh, Pa.
 E. D. Clapp Mfg. Co., Auburn, N. Y.
 Detroit Forging Co., Detroit, Mich.
 Richard Eccles Co., Auburn, N. Y.
 Erie Forge Co., Erie, Pa.
 Hay-Budden Mfg. Co., Brooklyn, N. Y.
 Indianapolis Drop Forging Co., Indianapolis, Ind.
 Keystone Drop Forge Works, Chester, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 Lough-Scott Co., 26 Cortlandt St., New York.
 Marine Hardware & Equipment Co., So. Portland, Me.
 New Castle Forge & Bolt Co., New Castle, Pa.
 Page-Storms Drop Forge Co., Brightwood, Mass.
 Richmond Forgings Corporation, Richmond, Va.
 Solid Steel Tool & Forge Co., Tarentum, Pa.
 Strieby & Foote Co., Newark, N. J.
 Transue & Williams Co., Alliance, O.
 United Drop Forging Co., Springfield, Mass.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
 A. P. Wittman & Co., 233-237 Cherry St., Philadelphia, Pa.
 Wyman & Gordon, Worcester, Mass.
Forgings, Thrust Collar—
 Erie Forge Co., Erie, Pa.
Fork and Spade Handles—
 (See Handles, Fork, Spade, &c.)
Fork Brackets—
 (See Brackets, Fork.)
Forks, Silver Plated—
 (See Spoons and Forks, Silver Plated.)
Forks, Baling Press—
 American Fork & Hoe Co., Cleveland, O.
 John H. Graham & Co., 113 Chambers St., New York.
Forks, Barley or Header—
 American Fork & Hoe Co., Cleveland, O.
 Continental Tool Co., Frankfort, N. Y.
 John H. Graham & Co., 113 Chambers St., New York.
Forks, Coke and Coal—
 American Fork & Hoe Co., Cleveland, O.
 Continental Tool Co., Frankfort, N. Y.
 John H. Graham & Co., 113 Chambers St., New York.
 H. Mueller Mfg. Co., Decatur, Ill.
 Osborn Mfg. Co., Cleveland, O.

Forks, Corn, Silver Plated—
 F. P. Pheggar & Son, New Haven, Ct.
Forks, Cotton Seed—
 American Fork & Hoe Co., Cleveland, O.
Forks, Fish—
 American Fork & Hoe Co., Cleveland, O.
Forks, Fodder—
 American Fork & Hoe Co., Cleveland, O.
Forks, Hay, Horse—
 (See Haying Tools.)
Forks, Hay, Manure, Spading, &c.—
 American Fork & Hoe Co., Cleveland, O.
 Continental Tool Co., Frankfort, N. Y.
 John H. Graham & Co., 113 Chambers St., New York.
 Smith & Hemenway Co., 108-110 Duane St., New York.
Forks, Hay Tedder—
 Wm. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
Forks, Ice—
 (See Ice Harvesting Tools.)
Forks, Kitchen—
 John Chatillon & Sons, 85 Cliff St., N. Y.
 Landers, Frary & Clark, New Britain, Ct.
 Potter Mfg. Co., Geneva, O.
 (See also Kitchen Articles, Wire.)
Forks, Ore—
 American Fork & Hoe Co., Cleveland, O.
 John H. Graham & Co., 113 Chambers St., New York.
Forks, Scoop, Vegetable—
 (See Scoop Forks, Vegetable.)
Forks, Sluice—
 American Fork & Hoe Co., Cleveland, O.
 Continental Tool Co., Frankfort, N. Y.
 John H. Graham & Co., 113 Chambers St., New York.
Forks, Spoons, &c., Silver and Silver Plated—
 (See Spoons, Forks, &c., Silver and Silver Plated.)
Forks, Stone or Ballast—
 American Fork & Hoe Co., Cleveland, O.
 Continental Tool Co., Frankfort, N. Y.
Forks, Strawberry or Garden—
 Potter Mfg. Co., Geneva, O.
Forks, Tanners—
 American Fork & Hoe Co., Cleveland, O.
 Continental Tool Co., Frankfort, N. Y.
Forks, Vegetable—
 Goodell Co., Antrim, N. H.
Forks, Wood—
 American Fork & Hoe Co., Cleveland, O.
Forksides, Bicycle—
 (See Bicycle Parts.)
Forming and Bending Machines—
 Adriance Machine Works, Brooklyn, N. Y.
 Ajax Mfg. Co., Cleveland, O.
 Badger State Machine Co., Janesville, Wis.
 Baird Machine Co., Oakville, Ct.
 Bertsch & Co., Cambridge City, Ind.
 Blake & Johnson, Waterbury, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.
 Hiles & Jones Co., Wilmington, Del.
 Long & Alistatter Co., Hamilton, O.
 National Machinery Co., Tiffin, O.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Niles-Reiment-Pond Co., 111 Broadway, New York.

George A. Ohl, Newark, N. J.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Wallace Supply Co., 169 Jackson Boulevard, Chicago, Ill.
Watson-Stillman Co., 46 Dey St., New York
Wickes Bros., Saginaw, Mich.
Williams, White & Co., Moline, Ill.

MERCHANTS.

J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
Fairbanks Co., 416 Broome St., New York
Marshall & Husehart Machinery Co., 62 S. Canal St., Chicago, Ill.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Stiles-Morse Co., Western Union Bldg., Chicago, Ill.
C. C. Wormer Machinery Co., Detroit, Mich.

Forming and Blanking Sheet Metal— (See Stamping Sheet Metal.)

Forming Machines, Automatic—

Automatic Machine Co., Bridgeport, Ct.
Baird Machine Co., Oakville, Ct.
Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Franklin Mfg. Co., New Haven, Ct.
Chas. Leffler & Co., Brooklyn, N. Y.
Pratt & Whitney Co., Hartford, Ct.

Forming Machines, Barrel Hoop—

F. B. Shuster Co., New Haven, Ct.

Forming Machines, Sheet Metal—

Adriance Machine Works, Brooklyn, N. Y.
Badger State Machine Co., Janesville, Wis.
Baird Machine Co., Oakville, Ct.
Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

F. J. Manville Mach. Co., Waterbury, Ct.
Niagara Machine & Tool Works, Buffalo, N. Y.

J. M. Robinson Mfg. Co., Cincinnati, O.
F. B. Shuster Co., New Haven, Ct.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Wickes Bros., Saginaw, Mich.

Forming Machines, Wire—

Adriance Machine Works, Brooklyn, N. Y.
Automatic Machine Co., Bridgeport, Ct.
Badger State Machine Co., Janesville, Wis.

Baird Machine Co., Oakville, Ct.
Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Hofer Mfg. Co., Freeport, Ill.
Chas. Leffler & Co., Brooklyn, N. Y.
E. J. Manville Mach. Co., Waterbury, Ct.
A. H. Nilson Machine Co., Bridgeport, Ct.

F. B. Shuster Co., New Haven, Ct.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Forms, Dress and Coat—

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Foundation and Sewer Gratings—

(See Gratings, Foundation, Sewer, &c.)

Foundation Bolts—

(See Bolts, Foundation.)

Foundry Cars, Facings, &c.—

(See Cars, Facings, &c.)

Foundry Machines, Steel—

Robt. Wetherill & Co., Inc., Chester, Pa.

Whiting Foundry Equipment Co., Harvey, Ill.

Foundry Plants—

Athol Machine Co., Athol, Mass.

Browning Engineering Co., Cleveland, O.

Byram & Co., Inc., Detroit, Mich.

Edward J. Etting, Harrison Bldg., Philadelphia, Pa.

Northern Engineering Works, Detroit, Mich.

J. W. Paxson Co., Philadelphia, Pa.

Pennsylvania Engineering Works, New Castle, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Whiting Foundry Equipment Co., Harvey, Ill.

Foundry Supplies—

Atlas Car & Mfg. Co., Cleveland, O.

Brown & Sharpe Mfg. Co., Providence, R. I.

Byram & Co., Inc., Detroit, Mich.

Case Mfg. Co., Columbus, O.

Edward J. Etting, Harrison Bldg., Philadelphia, Pa.

Gem Mfg. Co., Pittsburgh, Pa.

J. Gilmour, Bennett Bldg., New York.

Goldschmidt Thermit Co., 41 Wall St., New York.

Gould & Eberhardt, Newark, N. J.

E. M. Hadrich, 311 1-2 Walnut St., Philadelphia, Pa.

Ingersoll-Rand Co., 11 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.

Oliver Machinery Co., Grand Rapids, Mich.

Osborn Mfg. Co., Cleveland, O.

J. W. Paxson Co., Philadelphia, Pa.

Pennsylvania Engineering Works, New Castle, Pa.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

H. A. Rogers Co., 19 John St., New York.

Sandusky Tool Co., Sandusky, O.

J. D. Smith Foundry Supply Co., Cleveland, O.

Smooth-On Mfg. Co., Jersey City, N. J.

Springfield Facing Co., Springfield, Mass.

Whiting Foundry Equipment Co., Harvey, Ill.

Fountains, Drinking—

Glen Mfg. Co., Ellwood City, Pa.

Humphrey Machine Co., Keene, N. H.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Fountains, Park, Lawn, &c.—

Glen Mfg. Co., Ellwood City, Pa.

Stewart Iron Works, Cincinnati, O.

Foundry Wire—

W. S. Tyler Co., Cleveland, O.

Frame Setters—

(See Setters, Frame or Angle.)

Frames, Automobile—

John R. Keim Mills, Buffalo, N. Y.

Northern Engineering Works, Detroit, Mich.

Frames, Bag and Suit Case—
R. C. Jenkinson & Co., Newark, N. J.

Frames, Binder—
Jones & Laughlin Steel Co., Pittsburgh.

Frames, Bracket Saw—
Millers Falls Co., 28 Warren St., N. Y.

Frames, Cabinet and Turning Saw—
Henry Disston & Sons, Philadelphia, Pa.

Frames, Card, Drawer—
National Saw Co., Newark, N. J.

Frames, Card, Drawer—
Eagle Lock Co., Terryville, Ct.

Frames, Card, Drawer—
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Frames, Card, Drawer—
Reading Hardware Co., Reading, Pa.

Frames, Card, Drawer—
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Frames, Card, Drawer—
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Frames, Door and Window Screen—
Maine Mfg. Co., Nashua, N. H.

Frames, Grindstone—
Athol Machine Co., Athol, Mass.

Frames, Grindstone—
W. & B. Douglas, Middletown, Ct.

Frames, Grindstone—
Garvin Machine Co., Spring & Varick Sts., New York.

Frames, Grindstone—
Howard Iron Works, Buffalo, N. Y.

Frames, Grindstone—
Niles-Bement-Pond Co., 111 Broadway, New York.

Frames, Grindstone—
Oliver Machinery Co., Grand Rapids, Mich.

Frames, Hack Saw—
(See Saws, Hack, Blades and Frames.)

Frames, Hot Bed—
Lord & Burgham Co., Irvington-on-Hudson, N. Y.

Frames, Mirror and Photograph, Metal—
Hubley Mfg. Co., Lancaster, Pa.

Frames, Mirror and Photograph, Metal—
Geo. S. Knapp, Bridgeport, Ct.

Frames, Photograph, Silver Plated—
International Silver Co., 9-13 Maiden Lane, New York.

Frames, Steel Car Truck—
American Steel Foundries, Fisher Bldg., Chicago, Ill.

Frames, Steel Platform Scale—
Monarch Grubber Co., Lone Tree, Ia.

Frames, Turning Saw—
Chapin-Stephens Co., Pine Meadow, Ct.

Frames, Turning Saw—
Henry Disston & Sons, Philadelphia, Pa.

Frames, Wire Galvanizing or Tinning—
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

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Frames, Wire Galvanizing or Tinning—
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Fronts, Building, Iron—
(See Structural Material.)

Fronts, Building, Sheet Iron—
Berger Mfg. Co., Canton, O.

Fronts, Building, Sheet Iron—
Chatanooga Roofing & Foundry Co., Chattanooga, Tenn.

Fronts, Building, Sheet Iron—
Edwards Mfg. Co., Cincinnati, O.

Fronts, Building, Sheet Iron—
Edwards Mfg. Co., Cincinnati, O.

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Edwards Mfg. Co., Cincinnati, O.

Fronts, Building, Sheet Iron—
Edwards Mfg. Co., Cincinnati, O.

S. V. Huber & Co., Pittsburgh, Pa.
 Julian Kennedy, Pittsburgh, Pa.
 Walter Kennedy, Pittsburgh, Pa.
 G. W. McClure, Son & Co., Pittsburgh.
 Arthur G. McKee, Cleveland, O.
 Meehan Boiler & Construction Co., Lowellville, O.
 Pennsylvania Engineering Works, New Castle, Pa.
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.
 Wm. B. Scaffe & Sons Co., Pittsburgh.
 Wellman-Seaver-Morgan Co., Cleveland, O.

Furnaces, Boiler—
 American Furnace & Machine Co., Pittsburgh, Pa.
 S. Freeman & Sons Mfg. Co., Racine, Wis.

Furnaces, Brass Melting—
 American Furnace & Machine Co., Pittsburgh, Pa.

Byram & Co., Inc., Detroit, Mich.
 Hawley Down Draft Furnace Co., Superior and Townsend Sts., Chicago, Ill.
 Laclede Fire Brick Mfg. Co., St. Louis.
 Lunkenheimer Co., Cincinnati, O.
 Monarch Engineering & Mfg. Co., Baltimore, Md.
 Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.
 J. W. Paxson Co., Philadelphia, Pa.
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.
 Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
 Wm. Swindell & Bros., Pittsburgh, Pa.
 Whiting Foundry Equipment Co., Harvey, Ill.

Furnaces, Brazing—
 American Gas Furnace Co., 23 John St., New York.
 Turner Brass Works, 44 No. Franklin St., Chicago, Ill.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Furnaces, Case Hardening—
 American Gas Furnace Co., 23 John St., New York.
 Brown & Sharpe Mfg. Co., Providence, R. I.

Crosby Co., Buffalo, N. Y.
 A. P. Wittman & Co., 233-237 Cherry St., Philadelphia, Pa.

Furnaces, Chain Heating—
 American Furnace & Machine Co., Pittsburgh, Pa.
 American Gas Furnace Co., 23 John St., New York.
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Furnaces, Crucible—
 American Furnace & Machine Co., Pittsburgh, Pa.
 American Gas Furnace Co., 23 John St., New York.

Eimer & Amend, 265 3d Ave., New York.
 Forter-Miller Engineering Co., Inc., Pittsburgh, Pa.

J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.

Laclede Fire Brick Mfg. Co., St. Louis.
 Alex. Laughlin & Co., Pittsburgh, Pa.
 Monarch Engineering & Mfg. Co., Baltimore, Md.

S. Obermayer Co., Cincinnati, O.
 J. W. Paxson Co., Philadelphia, Pa.
 Wm. Swindell & Bros., Pittsburgh, Pa.

Furnaces, Crude Oil Melting—

Hawley Down Draft Furnace Co., Superior and Townsend Sts., Chicago, Ill.

Furnaces, Dental, Forcelain—

Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.

Furnaces, Down Draft Melting—

Hawley Down Draft Furnace Co., Superior and Townsend Sts., Chicago, Ill.

Furnaces, Electrically Heated—

Charles Engelhard, 41 Cortlandt St., N. Y.
 R. H. Wolff, 445 Broadway, New York.

Furnaces, Farmers' and Kitchen—

A. Buch's Sons Co., Elizabethtown, Pa.

Furnaces, Forging—

Acme Machinery Co., Cleveland, O.
 American Furnace & Machine Co., Pittsburgh, Pa.

Billings & Spencer Co., Hartford, Ct.
 National Machinery Co., Tiffin, O.

Russell Economical Furnace Co., 42 W. Quincy St., Chicago, Ill.

A. P. Wittman & Co., 233-237 Cherry St., Philadelphia, Pa.

Furnaces, Fuel Oil Melting—

American Gas Furnace Co., 23 John St., New York.

Hawley Down Draft Furnace Co., Superior and Townsend Sts., Chicago, Ill.

Monarch Engineering & Mfg. Co., Baltimore, Md.

Russell Economical Furnace Co., 42 W. Quincy St., Chicago, Ill.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Furnaces, Fuel Saving—

Standard Car & Foundry Co., Pittsburgh.
Furnaces, Gas Annealing—

American Gas Furnace Co., 23 John St., New York.

Furnaces, Gas Blast—

American Gas Furnace Co., 23 John St., New York.

Chicago Flexible Shaft Co., La Salle Ave. and Ontario St., Chicago, Ill.

Monarch Engineering & Mfg. Co., Baltimore, Md.

Furnaces, Gas, Brazing, Case Hardening, Chain Heating—

American Gas Furnace Co., 23 John St., New York.

Hess-Snyder Co., Massillon, O.

Furnaces, Gas, Crucible—

American Gas Furnace Co., 23 John St., New York.

Monarch Engineering & Mfg. Co., Baltimore, Md.

Furnaces, Gas Soldering—

Schneider & Trenkamp Co., Div. American Stove Co., Cleveland, O.

Furnaces, Glass—

American Furnace & Machine Co., Pittsburgh, Pa.

Furnaces, Heating—

Acme Machinery Co., Cleveland, O.
 American Furnace & Machine Co., Pittsburgh, Pa.

Billings & Spencer Co., Hartford, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.

Forster-Miller Engineering Co., Inc.,
Pittsburgh, Pa.
J. A. Herrick, Mutual Life Bldg., Phil-
adelphia, Pa.
S. V. Huber & Co., Pittsburgh, Pa.
Julian Kennedy, Pittsburgh, Pa.
Walter Kennedy, Pittsburgh, Pa.
Alex. Laughlin & Co., Pittsburgh, Pa.
G. W. McClure, Son & Co., Pittsburgh.
Arthur G. McKee, Cleveland, O.
Morgan Construction Co., Worcester, Mass.
National Machinery Co., Tiffin, O.
S. R. Smythe Co., Pittsburgh, Pa.
Wm. Swindell & Bros., Pittsburgh, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.

Furnaces, Lead—

H. Mueller Mfg. Co., Decatur, Ill.

Furnaces, Malleable—

American Furnace & Machine Co., Pitts-
burgh, Pa.

Whiting Foundry Equipment Co., Harvey,
Ill.

Furnaces, Muffle—

American Furnace & Machine Co., Pitts-
burgh, Pa.

American Gas Furnace Co., 23 John St.,
New York.

Einier & Amend, 205 3d Ave., New York.
Forster-Miller Engineering Co., Inc.,
Pittsburgh, Pa.

Laclede Fire Brick Mfg. Co., St. Louis.
Morgan Construction Co., Worcester,
Mass.

Russell Economical Furnace Co., 42 W.
Quincy St., Chicago, Ill.

A. S. Wittman & Co., 233-237 Cherry St.,
Philadelphia, Pa.

Furnaces, Natural Gas—

American Gas Furnace Co., 23 John St.,
New York.

Furnaces, Oil Melting—

Hawley Down Draft Furnace Co., Super-
ior and Townsend Sts., Chicago, Ill.

Monarch Engineering & Mfg. Co., Balti-
more, Md.

J. W. Paxson Co., 1021 N. Delaware Ave.,
Philadelphia, Pa.

Furnaces, Open Hearth—

American Furnace & Machine Co., Pitts-
burgh, Pa.

Forster-Miller Engineering Co., Inc.,
Pittsburgh, Pa.

J. A. Herrick, Mutual Life Bldg., Phil-
adelphia, Pa.

S. V. Huber & Co., Pittsburgh, Pa.
Julian Kennedy, Pittsburgh, Pa.

Walter Kennedy, Pittsburgh, Pa.
Alex. Laughlin & Co., Pittsburgh, Pa.

G. W. McClure, Son & Co., Pittsburgh.
Meehan Boiler & Construction Co., Low-
ellville, O.

J. W. Paxson Co., Philadelphia, Pa.

Pennsylvania Engineering Works, New
Castle, Pa.

Riter-Conley Mfg. Co., Pittsburgh, Pa.
S. R. Smythe Co., Pittsburgh, Pa.

Wm. Swindell & Bros., Pittsburgh, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.

Whiting Foundry Equipment Co., Harvey,
Ill.

MERCHANTS.

Arthur G. McKee, Cleveland, O.

Furnaces, Plumbers' and

Tinners.

E. W. Bliss Co., Brooklyn, N. Y.

Dangler Stove & Mfg. Div., Am. Stove
Co., Cleveland, O.

Niagara Machine & Tool Works, Buffalo,
N. Y.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Schneider & Trenkamp Div., Am. Stove
Co., Cleveland, O.

Turner Brass Works, Franklin & Michi-
gan Sts., Chicago, Ill.

Furnaces, Portable, Lead,

Gravel, Tar, &c.—

F. H. Evans, Brooklyn, N. Y.

Furnaces, Puddling—

American Furnace & Machine Co., Pitts-
burgh, Pa.

Alex. Laughlin & Co., Pittsburgh, Pa.
Wm. Swindell & Bros., Pittsburgh, Pa.

Furnaces, Revolving Forge—

National Machinery Co., Tiffin, O.

Furnaces, Rivet—

American Gas Furnace Co., 23 John St.,
New York.

Monarch Engineering & Mfg. Co., Balti-
more, Md.

National Machinery Co., Tiffin, O.
Russell Economical Furnace Co., 42 W.

Quincy St., Chicago, Ill.

Furnaces, Rivet, Oil or

Gas—
Monarch Engineering & Mfg. Co., Balti-
more, Md.

Russell Economical Furnace Co., 42 W.
Quincy St., Chicago, Ill.

Furnaces, Stove Fire—

Laclede Fire Brick Mfg. Co., St. Louis.

Furnaces, Tempering—
A. P. Wittman & Co., 233-237 Cherry St.,
Philadelphia, Pa.

Russell Economical Furnace Co., 42 W.
Quincy St., Chicago, Ill.

Furnaces, Tube Welding—
American Furnace & Machine Co., Pitts-
burgh, Pa.

Forster-Miller Engineering Co., Inc.,
Pittsburgh, Pa.

J. A. Herrick, Mutual Life Bldg., Phil-
adelphia, Pa.

Alex. Laughlin & Co., Pittsburgh, Pa.
Russell Economical Furnace Co., 42 W.

Quincy St., Chicago, Ill.

Furnaces, Warm Air—
Hess-Snyder Co., Massillon, O.

Kramer Bros. Foundry Co., Dayton, O.
West Side Foundry Co., Troy, N. Y.

Furnaces, Water Jacket—
Byram & Co., Detroit, Mich.

Furnaces, Wire Brazing—
American Gas Furnace Co., 23 John St.,
New York.

Furnaces, Wire Galva-

nizing—
Morgan Construction Co., Worcester,
Mass.

Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Furnaces, Wire Tinning—
Morgan Construction Co., Worcester,
Mass.

Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Furniture, Drafting Room—
Keuffel & Esser Co., 127 Fulton St., N. Y.

Furniture, Metal—
J. R. & J. M. Cornell, 208 11th Ave.,
New York.

Merritt & Co., 1024-1025 Ridge Ave., Phil-
adelphia, Pa.

- Fuse**—
Ensign, Bickford & Co., Simsbury, Ct.
Fused Quartz Ware—
Charles Engelhard, 41 Cortlandt St., N. Y.
Fuses, Electric, Enclosed—
H. W. Johns-Manville Co., 100 William St., New York.
Gable Ornaments—
(See Architectural Sheet Metal Work.)
Gadders—
Ingersoll-Rand Co., 11 Broadway, New York.
F. R. Patch Mfg. Co., Rutland, Vt.
Gaining Machines—
(See Wood Working Machines.)
Galley Sheets—
(See Sheets, Galley.)
Galvanized Angles, Bars, Channels, &c.
Cleveland Galvanizing Works, Cleveland.
Harold McCalla, 619 N. Front St., Philadelphia, Pa.
Scully Steel & Iron Co., 69 Halsted St., Chicago, Ill.
United Galvanizing Co., 525-529 N. Front St., Philadelphia, Pa.
Galvanized Bolts—
(See Bolts, Galvanized.)
Galvanized Iron, Cornice, &c.—
(See Cornice, &c., Galvanized Iron.)
Galvanized Sheets—
(See Sheets, Galvanized.)
Galvanized Wire Guy Strand—
Broderick & Bascom Rope Co., St. Louis.
A. Leschen & Sons Rope Co., St. Louis.
Galvanized Wire Rope—
Broderick & Bascom Rope Co., St. Louis.
A. Leschen & Sons Rope Co., St. Louis.
Galvanized Wire Strand—
(See Wires, Electrical.)
Galvanizing—
Avery Stamping Co., Cleveland, O.
Carnegie Steel Co., Pittsburgh, Pa.
Cleveland Galvanizing Works, Cleveland.
M. Lanz & Sons, Pittsburgh, Pa.
Harold McCalla, 619 N. Front St., Philadelphia, Pa.
Marine Hardware & Equipment Co., So. Portland, Me.
Pleuger & Henger Mfg. Co., St. Louis, Mo.
Republic Metalware Co., Buffalo, N. Y.
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
United Galvanizing Co., 525-529 Front St., Philadelphia, Pa.
Walker Foundry Co., Erie, Pa.
Wright Wire Co., Worcester, Mass.
Galvanizing Barrels for Small Articles—
U. S. Electro-Galvanizing Co., Brooklyn, N. Y.
Galvanizing Flux—
(See Tin, Phosphor and Silver Metal.)
Galvanizing Machinery, Wire—
Morgan Construction Co., Worcester, Mass.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
Galvanizing Plants—
Morgan Construction Co., Worcester, Mass.
H. Mueller Mfg. Co., Decatur, Ill.
Ritter-Conley Mfg. Co., Pittsburgh, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
U. S. Electro-Galvanizing Co., Brooklyn, N. Y.
MERCHANTS.
Phillips-Laffitte Co., Pennsylvania Bldg., Philadelphia, Pa.
Galvanizing Plants, Electro—
U. S. Electro-Galvanizing Co., Brooklyn, N. Y.
Galvanizing, Process of—
S. V. Huber & Co., Pittsburgh, Pa.
U. S. Electro-Galvanizing Co., Brooklyn, N. Y.
Game Bags, Traps—
(See Bags, Traps.)
Gang Saws—
(See Saws, Gang.)
Ganister—
J. W. Paxson Co., Philadelphia, Pa.
Garbage Cans, Chutes—
(See Cans, Chutes.)
Garden Hoes—
(See Hoes, Garden, Field, Mortar, &c.)
Garden Implements—
Bateman Mfg. Co., Grenloch, N. J.
Garden Lines, Rakes, Shears, &c.—
(See Lines, Rakes, Shears, &c.)
Gargoyles, Garlands, &c.—
(See Architectural Sheet Metal Work.)
Garment Display Stands, Hooks and Eyes, Stand Bases—
(See Stands, Hooks and Eyes, Bases.)
Garnet Paper—
(See Papers, Sand, Garnet, &c.)
Gas and Electric Fixtures—
Bridgeport Brass Co., 253 Broadway, N. Y.
General Electric Co., Schenectady, N. Y.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
Gas Cookers—
(See Plates, Hot.)
Gas Lighting Supplies—
General Gas Light Co., Kalamazoo, Mich.
Gas Logs, Pillars—
(See Logs, Pillars.)
Gas Plant Machinery—
Morgan Construction Co., Worcester, Mass.
Ritter-Conley Mfg. Co., Pittsburgh, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
Gas Plants, Coal—
Laclede Fire Brick Mfg. Co., St. Louis.
Gas Portables—
Goodwin & Kintz Co., Winsted, Ct.
Gas Works Tools—
H. Mueller Mfg. Co., Decatur, Ill.
Gaskets and Rings, Rubber—
H. O. Canfield Co., Bridgeport, Ct.
Jenkins Bros., 71 John St., New York.
New York Belting & Packing Co., 91-93 Chambers St., New York.
H. A. Rogers Co., 19 John St., New York.
Gaskets, Asbestos—
Goodwin & Kintz Co., Winsted, Ct.
Gaskets, Corrugated Brass—
U. S. Indestructible Gasket Co., 3 S. William St., New York.

- Gaskets, Corrugated Copper and Bronze—**
American Spiral Pipe Works, 1173-1201 S. Paulina St., Chicago, Ill.
Goodwin & Kirtz Co., Winsted, Ct.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Power Specialty Co., 111 Broadway, New York.
- U. S. Indestructible Gasket Co., 8 S. Ham St., New York.
- Gaskets, Corrugated Nickel Steel—**
U. S. Indestructible Gasket Co., 8 S. William St., New York.
- Gaskets, Corrugated Steel—**
U. S. Indestructible Gasket Co., 8 S. William St., New York.
- Gaskets, Elastic Metal and Asbestos—**
U. S. Indestructible Gasket Co., 8 S. William St., New York.
- Gaskets, Fiber, Wood, &c.—**
U. S. Indestructible Gasket Co., 8 S. William St., New York.
- Gaskets, Indestructible Metal—**
U. S. Indestructible Gasket Co., 8 S. William St., New York.
- Gaskets, Iron, Cement—**
Smooth-On Mfg. Co., Jersey City, N. J.
- Gaskets, Lead—**
Cleveland Galvanizing Works, Cleveland.
U. S. Indestructible Gasket Co., 8 S. William St., New York.
- Gasoline Engines, Generators, &c.—**
(See Engines, Generators, &c.)
- Gasoline Gas and Vapor Lamps—**
(See Lamps.)
- Gate Hangers, Hinges, Hooks, &c.—**
(See Hangers, Hinges, Hooks, &c.)
- Gates, Automatic Elevator—**
Webster & Perks Tool Co., Springfield, O.
- Gates, Automatic Hatch—**
Salem Elevator Works, Salem, Mass.
- Gates, Blast—**
Warsaw Elevator Co., Warsaw, N. Y.
- American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Connorsville Blower Co., Connorsville, Ind.
Eymon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.
Miner & Peck Mfg. Co., New Haven, Ct.
S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., Philadelphia, Pa.
Stirling Blower & Pipe Mfg. Co., Hartford, Ct.
- R. F. Sturtevant Co., Boston, Mass.
Wickes Bros., Saginaw, Mich.
- Gates, Extension—**
Estey Wire Works Co., 59 Fulton St., New York.
- Ludlow-Saylor Wire Co., St. Louis, Mo.
Wright Wire Co., Worcester, Mass.
- Gates, Fence—**
(See Fencing, Gates, &c.)
- Gates, Oil and Molasses—**
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Enterprise Mfg. Co., Philadelphia, Pa.
Charles Parker Co., Meriden, Ct.
- Taylor & Boggs Foundry Co., Cleveland.
- Gates, Safety Elevator—**
Energy Elevator Co., 403 Cherry St., Philadelphia, Pa.
- Salem Elevator Works, Salem, Mass.
- Gauge Boards, Marble and Wood—**
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Crosby Steam Gauge & Valve Co., Boston.
- Gauge Cocks, Saws—**
(See Cocks, Saws.)
- Gauges, Air Brake—**
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Crosby Steam Gauge & Valve Co., Boston.
- Gauges, Altitude—**
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
- Ashton Valve Co., Boston, Mass.
Crosby Steam Gauge & Valve Co., Boston.
- Gauges, Ammonia—**
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Ashton Valve Co., Boston, Mass.
Crosby Steam Gauge & Valve Co., Boston.
- Gauges and Squares, Combined—**
Brown & Sharpe Mfg. Co., Providence, R. I.
- H. H. Mayhew Co., Shelburne Falls, Mass.
- Gauges, Automobile—**
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Ohio Brass Co., Mansfield, O.
- Gauges, Bar Iron Limit—**
Pratt & Whitney Co., Hartford, Ct.
- Gauges, Bit—**
Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
Millers Falls Co., 28 Warren St., N. Y.
Stanley Rule & Level Co., New Britain, Ct.
- Gauges, Blast—**
Byram & Co., Inc., Detroit, Mich.
S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., Philadelphia, Pa.
- Gauges, Boiler Plate—**
Brown & Sharpe Mfg. Co., Providence, R. I.
- Gauges, Bolt and Pipe—**
Pratt & Whitney Co., Hartford Ct.
Wells Bros. Co., Greenfield, Mass.
- Gauges, Bolt and Nut—**
Chapin-Stephens Co., Pine Meadow, Ct.
Goodell-Pratt Co., Greenfield, Mass.
Stanley Rule & Level Co., New Britain, Ct.
- Tower & Lyon Co., 95 Chambers St., New York.
- Gauges, Caliper—**
Athol Machine Co., Athol, Mass.
- Brown & Sharpe Mfg. Co., Providence, R. I.
- Morse Twist Drill & Machine Co., New Bedford, Mass.
- John M. Rogers Boat Gauge & Drill Works, Gloucester City, N. J.
- J. T. Slocomb Co., Providence, R. I.
- L. S. Starrett Co., Athol, Mass.
- J. H. Williams & Co., Brooklyn, N. Y.
- Gauges, Center—**
Athol Machine Co., Athol, Mass.
- Brown & Sharpe Mfg. Co., Providence, R. I.
- Henry Duxton & Sons, Philadelphia, Pa.
Massachusetts Tool Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Ct.
L. S. Starrett Co., Athol, Mass.

- Gauges, Chisel—**
Stanley Rule & Level Co., New Britain, Ct.
- Gauges, Circumference—**
Pratt & Whitney Co., Hartford, Ct.
L. S. Starrett Co., Athol, Mass.
- Gauges, Clapboard—**
Peck, Stow & Wilcox Co., 77 Murray St., New York.
- Gauges, Level & Level Co., New Britain, Ct.**
- Gauges, Combination—**
Billings & Spencer Co., Hartford, Ct.
Chapin-Stephens Co., Pine Meadow, Ct.
Henry Diston & Sons, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
- Gauges, Decimal Sheet Metal—**
Ohio Brass Co., Mansfield, O.
Pratt & Whitney Co., Hartford, Ct.
- Gauges, Depth—**
Athol Machine Co., Athol, Mass.
Billings & Spencer Co., Hartford, Ct.
Brown & Sharpe Mfg. Co., Providence, R. I.
Gould & Eberhardt, Newark, N. J.
Massachusetts Tool Co., Greenfield, Mass.
Ohio Brass Co., Mansfield, O.
Smith & Hemenway Co., 108-110 Duane St., New York.
J. T. Slocumb Co., Providence, R. I.
L. S. Starrett Co., Athol, Mass.
- Gauges, Draft—**
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
- Gauges, Drill—**
Brown & Sharpe Mfg. Co., Providence, R. I.
Cleveland Twist Drill Co., Cleveland, O.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Standard Tool Co., Cleveland, O.
L. S. Starrett Co., Athol, Mass.
- Gauges, Gear Tooth—**
Boston Gear Works, Boston, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Gould & Eberhardt, Newark, N. J.
Union Twist Drill Co., Athol, Mass.
- Gauges, Height—**
L. S. Starrett Co., Athol, Mass.
- Gauges, Hub—**
L. S. Starrett Co., Athol, Mass.
- Gauges, Hydraulic—**
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Ashton Valve Co., Boston, Mass.
Crane Co., Chicago, Ill.
Crosby Steam Gauge & Valve Co., Boston.
Lunkenheimer Co., Cincinnati, O.
Watson-Stillman Co., 46 Dey St., New York.
- Gauges, Inspectors'—**
J. T. Slocumb Co., Providence, R. I.
L. S. Starrett Co., Athol, Mass.
- Gauges, Jointer—**
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., 28 Warren St., N. Y.
- Gauges, Lumber—**
Lufkin Rule Co., Saginaw, Mich.
- Gauges, Marking, &c—**
Billings & Spencer Co., Hartford, Ct.
Chapin-Stephens Co., Pine Meadow, Ct.
Henry Diston & Sons, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Sandusky Tool Co., Sandusky, O.
- Otis A. Smith, Rockfall, Ct.
- Stanley Rule & Level Co., New Britain, Ct.
- Gauges, Master Car Builders'—**
Pratt & Whitney Co., Hartford, Ct.
- Gauges, Mercury—**
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Edward Brown & Son, 311 Walnut St., Philadelphia, Pa.
- Gauges, Metric—**
Brown & Sharpe Mfg. Co., Providence, R. I.
Pratt & Whitney Co., Hartford, Ct.
John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.
J. T. Slocumb Co., Providence, R. I.
L. S. Starrett Co., Athol, Mass.
- Gauges, Micrometer—**
Brown & Sharpe Mfg. Co., Providence, R. I.
Massachusetts Tool Co., Greenfield, Mass.
J. T. Slocumb Co., Providence, R. I.
L. S. Starrett Co., Athol, Mass.
Wells Bros. Co., Greenfield, Mass.
- Gauges, Nail—**
Henry Diston & Sons, Philadelphia, Pa.
- Gauges, Ordinance—**
Crosby Steam Gauge & Valve Co., Boston.
- Gauges, Plane—**
Goodell-Pratt Co., Greenfield, Mass.
- Gauges, Plug and Ring—**
Brown & Sharpe Mfg. Co., Providence, R. I.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Ct.
John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.
Wells Bros. Co., Greenfield, Mass.
- Gauges, Pocket Caliper—**
Billings & Spencer Co., Hartford, Ct.
L. S. Starrett Co., Athol, Mass.
- Gauges, Pressure—**
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Ashton Valve Co., Boston, Mass.
Crosby Steam Gauge & Valve Co., Boston.
Lunkenheimer Co., Cincinnati, O.
- Gauges, Pressure Recording—**
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Bristol Co., Waterbury, Ct.
- Gauges, Pyrometer, Steam—**
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Ashton Valve Co., Boston, Mass.
Crosby Steam Gauge & Valve Co., Boston.
- Gauges, Railroad Track—**
Sheffield Car Co., Three Rivers, Mich.
- Gauges, Recording—**
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Ashton Valve Co., Boston, Mass.
Bristol Co., Waterbury, Ct.
Crosby Steam Gauge & Valve Co., Boston.
- Gauges, Recording, Light Pressure—**
Uehling-Decker Co., Passaic, N. J.
- Gauges, Recording, Light Vacuum—**
Uehling-Decker Co., Passaic, N. J.

Gauges, Rolling Mill—

Brown & Sharpe Mfg. Co., Providence
R. I.

Connorsville Blower Co., Connorsville, Ind.
Haines Gauge Co., Provident Bldg., Philadelphia, Pa.

Gauges, Rule—

Caldwell Mfg. Co., Rochester, N. Y.
Tower & Lyon Co., 95 Chambers St., New York.

Gauges, Saw Tooth—

E. C. Atkins & Co., Indianapolis, Ind.
Henry Diaston & Sons, Philadelphia, Pa.
Kilborn & Bishop Co., New Haven, Ct.

Gauges, Scratch, Surface, &c—

Athol Machine Co., Athol, Mass.
Billings & Spencer Co., Hartford, Ct.
Goodell-Pratt Co., Greenfield, Mass.
Massachusetts Tool Co., Greenfield, Mass.
L. S. Starrett Co., Athol, Mass.

Gauges, Screw Pitch—

Athol Machine Co., Athol, Mass.
Brown & Sharpe Mfg. Co., Providence,
R. I.

Butterfield & Co., Derby Line, Vt.
Pratt & Whitney Co., Hartford, Ct.
L. S. Starrett Co., Athol, Mass.
Wells Bros. Co., Greenfield, Mass.

Gauges, Sheet Metal—

Brown & Sharpe Mfg. Co., Providence,
R. I.
Pratt & Whitney Co., Hartford, Ct.
L. S. Starrett Co., Athol, Mass.

Gauges, Snap—

Billings & Spencer Co., Hartford, Ct.
Brown & Sharpe Mfg. Co., Providence,
R. I.

Cleveland Twist Drill Co., Cleveland, O.
Pratt & Whitney Co., Hartford, Ct.
John M. Rogers Boat, Gauge & Drill
Works, Gloucester City, N. J.
Wells Bros. Co., Greenfield, Mass.

Gauges, Stair—

L. S. Starrett Co., Athol, Mass.

Gauges, Standard Test—

American Steam Gauge & Valve Mfg. Co.,
Boston, Mass.
Crosby Steam Gauge & Valve Co., Boston.

Gauges, Steam and Vacuum—

American Steam Gauge & Valve Mfg. Co.,
Boston, Mass.
Ashton Valve Co., Boston, Mass.
Bristol Co., Waterbury, Ct.

Crosby Steam Gauge & Valve Co., Boston.
Lunkenheimer Company, Cincinnati, O.

Gauges, Surface—

Athol Machine Co., Athol, Mass.
Billings & Spencer Co., Hartford, Ct.
Brown & Sharpe Mfg. Co., Providence,
R. I.

Massachusetts Tool Co., Greenfield, Mass.
John M. Rogers, Boat, Gauge & Drill
Works, Gloucester City, N. J.
L. S. Starrett Co., Athol, Mass.

Gauges, Thickness—

Brown & Sharpe Mfg. Co., Providence,
R. I.
L. S. Starrett Co., Athol, Mass.

Gauges, Tide—

Keuffel & Esser Co., 127 Fulton St.,
New York.

Gauges, Twist Drill—

Brown & Sharpe Mfg. Co., Providence,
R. I.

Gauges, Vacuum Recording—

Bristol Co., Waterbury, Ct.

Gauges, Water—

American Steam Gauge & Valve Mfg.
Co., Boston, Mass.
Ashton Valve Co., Boston, Mass.
Crosby Steam Gauge & Valve Co., Boston.
Fairbanks Co., 416 Broome St., New York.
Lunkenheimer Company, Cincinnati, O.
McNab & Harlin Mfg. Co., 56 John St.,
New York.

Ohio Brass Co., Mansfield, O.

Wm. Powell Co., Cincinnati, O.

E. W. Vanduzen Co., Cincinnati, O.

Walworth Mfg. Co., Boston, Mass.

Gauges, Water Level, Recording—

Bristol Co., Waterbury, Ct.
Keuffel & Esser Co., 127 Fulton St.,
New York.

Gauges, Wire—

E. C. Atkins & Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence,
R. I.

Henry Diaston & Sons, Philadelphia, Pa.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Standard Tool Co., Cleveland, O.

L. S. Starrett Co., Athol, Mass.

Wright Wire Co., Worcester, Mass.

Gavels—

E. B. Estes & Sons, 45-47 John St., N. Y.

Gear Blanks, Cutters, Planers—

(See Blanks, Cutters, Planers.)

Gear Blanks, Rawhide—

Horsburgh & Scott Co., Cleveland, O.
New Process Raw Hide Co., Syracuse,
N. Y.

Gear Cutting—

Bancroft & Co., Drexel Bldg., Philadel-
phia, Pa.

Blake & Johnson, Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Boston Gear Works, Boston, Mass.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Browning Engineering Co., Cleveland, O.

Case Mfg. Co., Columbus, O.

Earle Gear & Machine Co., Oxford and
Mascher Sts., Philadelphia, Pa.

Farrel Foundry & Machine Co., Ansonia,
Ct.

Fawcuss Machine Co., Pittsburgh, Pa.

Foot Bros. Gear & Machine Co., 24-30
S. Clinton St., Chicago, Ill.

Wm. Ganschow, 12-14 S. Clinton St.,
Chicago, Ill.

Wm. Gardam & Son, Inc., 45-51 Rose St.,
New York.

Gleason Works, Rochester, N. Y.

Gould & Eberhardt, Newark, N. J.

Edwin Harrington, Son & Co. (Inc.),
Philadelphia, Pa.

Horsburgh & Scott Co., Cleveland, O.

Humphrey Machine Co., Keene, N. H.

New Process Raw Hide Co., Syracuse,
N. Y.

Northern Engineering Works, Detroit,
Mich.

R. D. Nuttall Co., Pittsburgh, Pa.

Poole Engineering & Machine Co., Bal-
timore, Md.

Pratt & Whitney Co., Hartford, Ct.

Stow Flexible Shaft Co., 26th & Callow-
hill Sts., Philadelphia, Pa.

- Russell & Erwin Mfg. Co.**, 43-47 Chambers St., New York.
- Snell Mfg. Co.**, Fiskdale, Mass.
- Gins, Ice Holisting—**
Gifford-Wood Co., Arlington, Mass.
- Girders—**
Girders, Clamps, Rails—
 (See Clamps, Rails.)
- Girders—**
 (See Buildings and Bridges.)
- Glass Boards—**
 (See Boards, Glass.)
- Glass Cutters, Glass Tube Cutters—**
 (See Cutters.)
- Glass Hooks, Tubes—**
 (See Hooks, Tubes.)
- Glass Pliers—**
 (See Pliers, Glass.)
- Glass, Scotch Gauge—**
 Crosby Steam Gage & Valve Co., Boston.
- Lunkenheimer Co.**, Cincinnati, O.
- H. A. Rogers Co.**, 19 John St., N. Y.
- Glass Works Machinery—**
Fischer Foundry & Machine Co., Pittsburgh, Pa.
- Myrick Machine Co.**, Olean, N. Y.
- Wheeling Mold & Foundry Co.**, Wheeling, W. Va.
- Glasses Holders—**
 (See Holders, Glasses.)
- Glasses, Level—**
Chapin-Stephens Co., Pine Meadow, Ct.
- Henry Diaston & Sons**, Philadelphia, Pa.
- Keuffel & Esser Co.**, 127 Fulton St., New York.
- Stanley Rule & Level Co.**, New Britain, Ct.
- Glasses, Opera, Field—**
Keuffel & Esser Co., 127 Fulton St., N. Y.
- Glasses, Shaving, Adjustable—**
Caldwell Mfg. Co., Rochester, N. Y.
- Glaziers, Points, Rules—**
 (See Points, Rules.)
- Glove Boxes—**
 (See Boxes, Silver Plated.)
- Glove Buttoners—**
 (See Hooks, Button.)
- Gloves, Metal—**
Smith & Hemenway Co., 108-110 Duane St., New York.
- Glue—**
Baeder, Adamson & Co., 730 Market St., Philadelphia, Pa.
- Glue Heaters—**
 (See Heaters, Glue.)
- Glue, Liquid Fish—**
Tower & Lyon Co., 35 Chambers St., New York.
- Glue Room Appliances—**
Oliver Machinery Co., Grand Rapids, Mich.
- Gluing Machines—**
George A. Ohl & Co., Newark, N. J.
- Go-Carts—**
Streator Metal Stamping Co., Streator, Ill.
- Gold—**
Baker & Co., Inc., Newark, N. J.
- Gold or Platers' Metal—**
 (See Metal, Platers' or Gold.)
- Gold Head Lathes—**
 (See Lathes, Golf Head.)
- Golf Irons—**
 (See Irons, Golf.)
- Gong Bells—**
 (See Bells, Gong.)
- Gongs—**
American Tube & Stamping Co., Bridgeport, Ct.
- H. A. Matthews Mfg. Co.**, Seymour, Ct.
- Wm. Powell Co.**, Cincinnati, O.
- Wallace Supply Co.**, 169 Jackson Boulevard, Chicago, Ill.
- Gauges, Tanged, Socket—**
 (See Chisels and Gauges.)
- Governors, Engine—**
Lovegrove & Co., 143-145 N. Third St., Philadelphia, Pa.
- Governors, Pump—**
Mason Regulator Co., Boston, Mass.
- Governors, Tank—**
Mason Regulator Co., Boston, Mass.
- Grabs, Rafter—**
 (See Grapples, Rafter.)
- Graders, Pneumatic—**
B. F. Sturtevant Co., Hyde Park, Mass.
- Graders, Road—**
 (See Levelers and Graders, Road.)
- Graduated Scales—**
 (See Scales, Graduated.)
- Grain Cradles, Elevators, Scales, Scoops—**
 (See Cradles, Elevators, Scales, Scoops.)
- Grain Handling Machinery—**
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
- Case Mfg. Co.**, Columbus, O.
- Dodge Mfg. Co.**, Mishawaka, Ind.
- Jeffrey Mfg. Co.**, Columbus, O.
- Poole Engineering & Machine Co.**, Baltimore, Md.
- Granaries, Portable—**
Adam's Steel & Wire Works, Joliet, Ill.
- Granite Drills—**
 (See Chisels and Drills.)
- Grape Hoes—**
 (See Hoes, Grape.)
- Graphite—**
Geo. G. Blackwell, Sons & Co., The Albany, Liverpool, England.
- Jos. Dixon Crucible Co.**, Jersey City, N. J.
- McCunough-Dalzell Crucible Co.**, Pittsburgh, Pa.
- S. Obermayer Co.**, Cincinnati, O.
- J. D. Smith Foundry Supply Co.**, Cleveland, O.
- Springfield Facing Co.**, Springfield, Mass.
- Graphite Metal, Cool Running—**
Cool Running Graphite Metal Co., Cincinnati, O.
- Grapples, Ice—**
 (See Ice Harvesting Tools.)
- Grapples, Rafter—**
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
- F. E. Myers & Bro.**, Ashland, O.
- Ney Mfg. Co.**, Canton, O.
- J. E. Porter Co.**, Ottawa, Ill.
- Grapping Irons—**
 (See Irons, Grapping.)
- Grass Catchers and Collectors—**
 (See Catchers, Grass.)
- Grass Hook Handles—**
 (See Handles, Grass Hook.)
- Grate Bars—**
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
- Browning Engineering Co.**, Cleveland, O.
- Kramer Bros. Foundry Co.**, Dayton, O.
- McClave-Brooks Co.**, Scranton, Pa.

- Standard Car & Foundry Co.**, Pittsburgh.
Walker Foundry Co., Erie, Pa.
Wickes Bros., Saginaw, Mich.
Grate Bars, Shaking—
McClave-Brooks Co., Scranton, Pa.
Wickes Bros., Saginaw, Mich.
Grate Guards—
 (See Guards, Grate.)
Graters, Corn—
Bonney Vise & Tool Works, 3011-3015
 Chestnut St., Philadelphia, Pa.
Henry Diaston & Sons, Philadelphia, Pa.
National Saw Co., Newark, N. J.
Graters, Horse Radish,
&c.—
Enterprise Mfg. Co., Philadelphia, Pa.
Graters, Nutmeg—
Caliwell Mfg. Co., Rochester, N. Y.
Grates, Extension—
 (See Stove Repairs.)
Grates, Mantel—
Chattanooga Roofing & Foundry Co.,
 Chattanooga, Tenn.
Murdock Shaw Co., Boston, Mass.
Grates, Parlor Gas—
Schneider & Trenkamp Div., Am. Stove
 Co., Cleveland, O.
Grates, Rocking and Dump-
ing—
Kramer Bros. Foundry Co., Dayton, O.
Grates, Shaking—
McClave-Brooks Co., Scranton, Pa.
Merrick Machine Co., Olean, N. Y.
Grating, Area—
 (See Iron Work, Builders'.)
Gratings, Foundation.
Sewer, &c.—
 (See Iron Work, Builders'.)
Gravel Furnaces—
 (See Furnaces, Portable, &c.)
Gray Iron—
Taylor-Wilson Mfg. Co., McKees Rocks,
 Pa.
Grease, Axle—
Jos. Dixon Crucible Co., Jersey City, N. J.
Grease, Gun—
J. Stevens Arms & Tool Co., Chicopee
 Falls, Mass.
Grease, Waterproof—
Jos. Dixon Crucible Co., Jersey City, N. J.
Grease, Wire Rope—
Broderick & Bascom Rope Co., St. Louis.
Greenhouse Material—
Lord & Burnham Co., Irvington-on-Hud-
 son, N. Y.
Greenhouses, Iron Framed—
Lord & Burnham Co., Irvington-on-Hud-
 son, N. Y.
Griddle, Cake—
Avery Stamping Co., Cleveland, O.
Smith & Hemenway Co., 108-110 Duane
 St., New York.
Griddles, Cake, Electric—
General Electric Co., Schenectady, N. Y.
Griddles, Soapstone—
Pike Mfg. Co., Pike, N. H.
Grilles, Iron—
 (See Iron, Brass and Bronze, Ornamental.)
Grinders' and Polishers'
Supplies—
Bridgeport Safety Emery Wheel Co.,
 Bridgeport, Ct.
Carborundum Co., Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., 39-45 W.
 Randolph St., Chicago, Ill.
Diamond Machine Co., Providence, R. I.
Hanson & Van Winkle Co., Newark, N. J.
Northampton Emery Wheel Co., Leeds,
 Mass.
Norton Emery Wheel Co., Worcester, Mass.
Norton Grinding Co., Worcester, Mass.
S. Obermayer Co., Cincinnati, O.
Safety Emery Wheel Co., Springfield, O.
Zucker & Lovett & Loeb Co., 528-530 West
 25th St., New York.
Grinders, Automatic Knife—
Bridgeport Safety Emery Wheel Co., Inc.,
 Bridgeport, Ct.
Safety Emery Wheel Co., Springfield, O.
Grinders, Bench—
Athol Machine Co., Athol, Mass.
Bridgeport Safety Emery Wheel Co.,
 Bridgeport, Ct.
Brown & Sharpe Mfg. Co., Providence,
 R. I.
Builders' Iron Foundry, Providence, R. I.
Chicago Wheel & Mfg. Co., 39-45 W.
 Randolph St., Chicago, Ill.
Jas. Clark Jr. & Co., Louisville, Ky.
Diamond Machine Co., Providence, R. I.
Grant Mfg. & Machine Co., Bridgeport,
 Ct.
Hisey-Wolf Machine Co., Cincinnati, O.
Norton Grinding Co., Worcester, Mass.
Oliver Machinery Co., Grand Rapids,
 Mich.
Pratt & Whitney Co., Hartford, Ct.
Ransom Mfg. Co., Oakbrook, Wis.
Rock River Machine Co., Janesville, Wis.
Safety Emery Wheel Co., Springfield, O.
Sterling Emery Wheel Mfg. Co., Tiffin, O.
Victrol Wheel Co., Westfield, Mass.
Washburn Shops, Worcester, Mass.
Webster & Perks Tool Co., Springfield, O.
MERCHANTS.
American Emery Wheel Works, Provi-
 dence, R. I.
Fairbanks Co., 416 Broome St., New York.
Freyert Machinery Co., 18 Dey St., New
 York.
Marshall & Hueschart Machinery Co., 62
 S. Canal St., Chicago, Ill.
Norton Emery Wheel Co., Worcester,
 Mass.
Patterson, Gottfried & Hunter, Ltd., 146-
 150 Centre St., New York.
H. A. Stocker Machinery Co., 20 S. Clin-
 ton St., Chicago, Ill.
Vandyck-Churchill Co., 8 Dey St., N. Y.
C. C. Wormer Machinery Co., Detroit,
 Mich.
Grinders, Car Wheel—
Norton Grinding Co., Worcester, Mass.
Springfield Mfg. Co., Bridgeport, Ct.
Grinders, Chisel—
Chicago Wheel & Mfg. Co., 39-45 W.
 Randolph St., Chicago, Ill.
Millers Falls Co., 28 Warren St., N. Y.
Grinders, Circular Saw—
Chicago Wheel & Mfg. Co., 39-45 W.
 Randolph St., Chicago, Ill.
Vandyck-Churchill Co., 8 Dey St., N. Y.
Grinders, Cock—
Pratt & Whitney Co., Hartford, Ct.
Grinders, Corn and Feed—
S. Freeman & Sons Mfg. Co., Racine,
 Wis.
Grinders, Cup, Cone and
Hub—
Bridgeport Safety Emery Wheel Co.,
 Bridgeport, Ct.

Diamond Machine Co., Providence, R. I.
Pratt & Whitney Co., Hartford, Ct.
Safety Emery Wheel Co., Springfield, O.
Sterling Emery Wheel Mfg. Co., Tiffin, O.

Grinders, Cutter—

Automatic Machine Co., Greenfield, Mass.
Becker-Brainard Milling Machine Co.,
Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Chicago Wheel & Mfg. Co., 39-45 W.
Randolph St., Chicago, Ill.

Cincinnati Milling Machine Co., Cincin-
nati, O.

Jas. Clark Jr. & Co., Louisville, Ky.
Diamond Machine Co., Providence, R. I.

Garvin Machine Co., Spring & Varick Sts.,
New York.

Gould & Eberhardt, Newark, N. J.
Heald Machine Co., Worcester, Mass.

Hisey-Wolf Machine Co., Cincinnati, O.
National Machine Co., Hartford, Ct.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Norton Grinding Co., Worcester, Mass.
Pratt & Whitney Co., Hartford, Ct.

Dwight Slate Machine Co., Hartford, Ct.

MERCHANTS.

George E. Affleck, 109 Liberty St., N. Y.
Baird Machinery Co., Pittsburgh, Pa.

Fairbanks Co., 416 Broome St., New York.
Frevert Machinery Co., 18 Day St., New

York.
Hill, Clarke & Co., Boston, Mass.

Marshall & Huschart Machinery Co., 62
S. Canal St., Chicago, Ill.

Norton Emery Wheel Co., Worcester, Mass.
Prentiss Tool & Supply Co., 115 Liberty

St., New York.
Sterling Emery Wheel Mfg. Co., Tiffin, O.

H. A. Stocker Machinery Co., 20 S. Clin-
ton St., Chicago, Ill.

Vandyck-Churchill Co., 8 Day St., N. Y.
C. C. Wormer Machinery Co., Detroit,

Mich.
Grinders, Cylinder—

Brown & Sharpe Mfg. Co., Providence,
R. I.

Grinders, Disc—
Chas. H. Besley & Co., 15-21 S. Clinton

St., Chicago, Ill.
Chicago Wheel & Mfg. Co., 39-45 W. Ran-

dolph St., Chicago, Ill.
Gardner Machine Co., Beloit, Wis.

Heald Machine Co., Worcester, Mass.
Niles-Bement-Pond Co., 111 Broadway,

New York.
O. K. Tool Holder Co., Shelton, Ct.

Ransome Mfg. Co., Oshkosh, Wis.
Safety Emery Wheel Co., Springfield, O.

Grinders, Drill—
Chicago Wheel & Mfg. Co., 39-45 W.

Randolph St., Chicago, Ill.
Cleveland Twist Drill Co., Cleveland, O.

Diamond Machine Co., Providence, R. I.
Garvin Machine Co., Spring & Varick Sts.,

New York.
Heald Machine Co., Worcester, Mass.

Landis Tool Co., Waynesboro, Pa.
Niles-Bement-Pond Co., 111 Broadway,

New York.
Norton Grinding Co., Worcester, Mass.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
Washburn Shops, Worcester, Mass.

MERCHANTS.

American Emery Wheel Works, Provi-
dence, R. I.

Brown & Zortman Machinery Co., Pitts-
burgh, Pa.

Fairbanks Co., 416 Broome St., New York.
Frevert Machinery Co., 18 Day St., New

York.
Hill, Clarke & Co., Boston, Mass.

Marshall & Huschart Machinery Co., 62
S. Canal St., Chicago, Ill.

Norton Emery Wheel Co., Worcester, Mass.
Sterling Emery Wheel Mfg. Co., Tiffin, O.

H. A. Stocker Machinery Co., 20 S. Clin-
ton St., Chicago, Ill.

Vandyck-Churchill Co., 8 Day St., N. Y.
Vitritied Wheel Co., Westfield, Mass.

C. C. Wormer Machinery Co., Detroit,
Mich.

Grinders, Electric Driven—
Bridgeport Safety Emery Wheel Co.,

Bridgeport, Ct.
Chicago Wheel & Mfg. Co., 39-45 W. Ran-

dolph St., Chicago, Ill.
Jas. Clark Jr. & Co., Louisville, Ky.

General Electric Co., Schenectady, N. Y.
Heald Machine Co., Worcester, Mass.

Hisey-Wolf Machine Co., Cincinnati, O.
Niles-Bement-Pond Co., 111 Broadway,

New York.
Northern Electrical Mfg. Co., Madison,

Wis.
Ransom Mfg. Co., Oshkosh, Wis.

Safety Emery Wheel Co., Springfield, O.
Stow Flexible Shaft Co., 26th & Callow-

hill Sts., Philadelphia, Pa.
United States Electric Tool Co., Cincin-

nati, O.

Grinders, Foot and Hand
Power—

Chicago Wheel & Mfg. Co., 39-45 W. Ran-
dolph St., Chicago, Ill.

Robertson Mfg. Co., Buffalo, N. Y.

Grinders for Wire Nail
Dies—

Henry Perkins Co., Bridgeport, Mass.

Grinders, Knife and Scis-
sors—

American Emery Wheel Works, Provi-
dence, R. I.

Chicago Wheel & Mfg. Co., 39-45 W.
Randolph St., Chicago, Ill.

Grinders, Lathe—
Chicago Flexible Shaft Co., 124 La Salle

Ave., Chicago, Ill.
Diamond Machine Co., Providence, R. I.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Springfield Mfg. Co., Bridgeport, Ct.

Grinders, Lathe Center—
Chicago Flexible Shaft Co., 124 La Salle

Ave., Chicago, Ill.
Chicago Wheel & Mfg. Co., 39-45 W.

Randolph St., Chicago, Ill.
Jas. Clark Jr. & Co., Louisville, Ky.

Diamond Machine Co., Providence, R. I.
Gem Mfg. Co., Pittsburgh, Pa.

Grant Mfg. & Machine Co., Bridgeport,
Ct.

Heald Machine Co., Worcester, Mass.
Hisey-Wolf Machine Co., Cincinnati, O.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Norton Grinding Co., Worcester, Mass.
Pratt & Whitney Co., Hartford, Ct.

Dwight Slate Machine Co., Hartford, Ct.
Stow Flexible Shaft Co., 26th & Callow-

hill Sts., Philadelphia, Pa.

Grinders, Lawn Mower—
Chicago Wheel & Mfg. Co., 39-45 W.
Randolph St., Chicago, Ill.
Pike Mfg. Co., Pike, N. H.
Itoot Bros. Co., Plymouth, O.
Springfield Mfg. Co., Bridgeport, Ct.

Grinders, Mowing Machine Knife—
Chicago Wheel & Mfg. Co., 39-45 W. Ran-
dolph St., Chicago, Ill.

Grinders, Planer Knife—
Bridgeport Safety Emery Wheel Co.,
Bridgeport, Ct.
Chicago Wheel & Mfg. Co., 39-45 W.
Randolph St., Chicago, Ill.
Defiance Machine Works, Defiance, O.
Diamond Machine Co., Providence, R. I.
Northampton Emery Wheel Co., Leeds,
Mass.

Oliver Machinery Co., Grand Rapids,
Mich.
Louis E. Reichtin & Bro., Cincinnati, O.
Safety Emery Wheel Co., Springfield, O.

Grinders, Plow Share—
Bridgeport Safety Emery Wheel Co.,
Bridgeport, Ct.
Safety Emery Wheel Co., Springfield, O.
Webster & Perks Tool Co., Springfield, O.

Grinders, Portable—
Chicago Wheel & Mfg. Co., 39-45 W.
Randolph St., Chicago, Ill.

Jas. Clark Jr. & Co., Louisville, Ky.
Diamond Machine Co., Providence, R. I.
Gem Mfg. Co., Pittsburgh, Pa.
Helwig Mfg. Co., St. Paul, Minn.
Hisey-Wolf Machine Co., Cincinnati, O.
Niles-Bement-Pond Co., 111 Broadway,
New York.
Stow Flexible Shaft Co., 26th & Callow-
hill Sts., Philadelphia, Pa.
Stow Mfg. Co., Binghamton, N. Y.

Grinders, Portable, Pneumatic—
Helwig Mfg. Co., St. Paul, Minn.

Grinders, Punch and Die—
Springfield Mfg. Co., Bridgeport, Ct.

Grinders, Reamer—
Automatic Machine Co., Greenfield, Mass.
Becker-Brainard Milling Machine Co.,
Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence,
R. I.
Chicago Wheel & Mfg. Co., 39-45 W.
Randolph St., Chicago, Ill.

Cincinnati Milling Machine Co., Cincin-
nati, O.
Jas. Clark Jr. & Co., Louisville, Ky.
Diamond Machine Co., Providence, R. I.
Garvin Machine Co., Spring & Varick Sts.,
New York.

Heald Machine Co., Worcester, Mass.
Hisey-Wolf Machine Co., Cincinnati, O.
Landis Tool Co., Waynesboro, Pa.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Norton Grinding Co., Worcester, Mass.
Pratt & Whitney Co., Hartford, Ct.

MERCHANTS.
Brown & Zortman Machinery Co., Pitts-
burgh, Pa.
Fairbanks Co., 416 Broome St., New York.
Frevet Machinery Co., 18 Dey St., New
York.

Hill, Clarke & Co., Boston, Mass.
Marshall & Huschart Machinery Co., 62
S. Canal St., Chicago, Ill.

H. A. Stocker Machinery Co., 20 S. Clin-
ton St., Chicago, Ill.
C. O. Wormer Machinery Co., Detroit,
Mich.

Grinders, Roll—
Bridgeport Safety Emery Wheel Co., Inc.,
Bridgeport, Ct.

Case Mfg. Co., Columbus, O.
Farrel Foundry & Machine Co., An-
sonia, Ct.

E. Harrington, Son & Co. (Inc.), Phila-
delphia, Pa.

Mesta Machine Co., Pittsburgh, Pa.
Norton Grinding Co., Worcester, Mass.
Safety Emery Wheel Co., Springfield, O.

Springfield Mfg. Co., Bridgeport, Ct.

Grinders, Rotary Shear—
Springfield Mfg. Co., Bridgeport, Ct.

Grinders, Section, Mower and Reaper—
Chicago Wheel & Mfg. Co., 39-45 W. Ran-
dolph St., Chicago, Ill.

Whitman & Barnes Mfg. Co., Chicago.
Grinders, Shafting—
Norton Grinding Co., Worcester, Mass.

Springfield Mfg. Co., Bridgeport, Ct.

Grinders, Sickle—
Chicago Wheel & Mfg. Co., 39-45 W. Ran-
dolph St., Chicago, Ill.

Grinders, Surface—
Chas. H. Besly & Co., 15-21 Clinton St.,
Chicago, Ill.

Biggall & Keeler Mfg. Co., Edwards-
ville, Ill.

Blake & Johnson, Waterbury, Ct.
Bridgeport Safety Emery Wheel Co.,
Bridgeport, Ct.

Brown & Sharpe Mfg. Co., Providence,
R. I.
Builders Iron Foundry, Providence, R. I.

Chicago Wheel & Mfg. Co., 39-45 W.
Randolph St., Chicago, Ill.

Jas. Clark Jr. & Co., Louisville, Ky.
Diamond Machine Co., Providence, R. I.
Garvin Machine Co., Spring and Varick
Sts., New York.

Grant Mfg. & Machine Co., Bridgeport,
Ct.

Hisey-Wolf Machine Co., Cincinnati, O.
Landis Tool Co., Waynesboro, Pa.

National Machine Co., Hartford, Ct.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Norton Grinding Co., Worcester, Mass.
Ransom Mfg. Co., Oakbrook, Wis.

Safety Emery Wheel Co., Springfield, O.
Wm. Sellers & Co. (Inc.), Philadelphia.
Springfield Mfg. Co., Bridgeport, Ct.

Stow Flexible Shaft Co., 26th and Callow-
hill Sts., Philadelphia, Pa.

MERCHANTS.
Baird Machinery Co., Pittsburgh, Pa.
Fairbanks Co., 416 Broome St., New York.
Frevet Machinery Co., 18 Dey St., New
York.

Hill, Clarke & Co., Boston, Mass.
Marshall & Huschart Machinery Co., 62
S. Canal St., Chicago, Ill.

H. A. Stocker Machinery Co., 20 S. Clin-
ton St., Chicago, Ill.
Vandyck-Churchill Co., 8 Dey St., N. Y.
C. O. Wormer Machinery Co., Detroit,
Mich.

Grinders, Swing Frame—
Bridgeport Safety Emery Wheel Co.,
Bridgeport, Ct.

Diamond Machine Co., Providence, R. I.
 Pratt & Whitney Co., Hartford, Ct.
 Safety Emery Wheel Co., Springfield, O.
 Sterling Emery Wheel Mfg. Co., Tiffin, O.

Grinders, Cutter—
 Automatic Machine Co., Greenfield, Mass.
 Becker-Brainard Milling Machine Co.,
 Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence,
 R. I.

Chicago Wheel & Mfg. Co., 39-45 W.
 Randolph St., Chicago, Ill.

Cincinnati Milling Machine Co., Cincin-
 nati, O.

Jas. Clark, Jr. & Co., Louisville, Ky.
 Diamond Machine Co., Providence, R. I.

Garvin Machine Co., Spring & Varick Sts.,
 New York.

Gould & Eberhardt, Newark, N. J.
 Heald Machine Co., Worcester, Mass.

Hisey-Wolf Machine Co., Cincinnati, O.
 National Machine Co., Hartford, Ct.

Niles-Bement-Pond Co., 111 Broadway,
 New York.

Norton Grinding Co., Worcester, Mass.
 Pratt & Whitney Co., Hartford, Ct.

Dwight Slate Machine Co., Hartford, Ct.

MERCHANTS.
 George E. Amick, 109 Liberty St., N. Y.

Raid Machine Co., Pittsburgh, Pa.
 Fairbanks Co., 416 Broome St., New York.

Frevert Machinery Co., 18 Dey St., New
 York.

Hill, Clarke & Co., Boston, Mass.
 Marshall & Hushart Machinery Co., 62
 S. Canal St., Chicago, Ill.

Norton Emery Wheel Co., Worcester, Mass.
 Prentiss Tool & Supply Co., 115 Liberty
 St., New York.

Sterling Emery Wheel Mfg. Co., Tiffin, O.
 H. A. Stocker Machinery Co., 20 S. Clin-
 ton St., Chicago, Ill.

Vandeyck-Churchill Co., 8 Dey St., N. Y.
 O. C. Wormer Machinery Co., Detroit,
 Mich.

Grinders, Cylinder—
 Brown & Sharpe Mfg. Co., Providence,
 R. I.

Grinders, Disc—
 Chas. H. Besley & Co., 15-21 S. Clinton
 St., Chicago, Ill.

Chicago Wheel & Mfg. Co., 39-45 W. Ran-
 dolph St., Chicago, Ill.

Gardner Machine Co., Beloit, Wis.
 Heald Machine Co., Worcester, Mass.

Niles-Bement-Pond Co., 111 Broadway,
 New York.

O. R. Tool Holder Co., Shelton, Ct.
 Ransome Mfg. Co., Oshkosh, Wis.

Safety Emery Wheel Co., Springfield, O.

Grinders, Drill—
 Chicago Wheel & Mfg. Co., 39-45 W.
 Randolph St., Chicago, Ill.

Cleveland Twist Drill Co., Cleveland, O.
 Diamond Machine Co., Providence, R. I.

Garvin Machine Co., Spring & Varick Sts.,
 New York.

Heald Machine Co., Worcester, Mass.
 Landis Tool Co., Waynesboro, Pa.

Niles-Bement-Pond Co., 111 Broadway,
 New York.

Norton Grinding Co., Worcester, Mass.
 Wm. Sellers & Co. (Inc.) Philadelphia, Pa.

Washburn Shops, Worcester, Mass.

MERCHANTS.
 American Emery Wheel Works, Provi-
 dence, R. I.

Brown & Zortman Machinery Co., Pitts-
 burgh, Pa.

Fairbanks Co., 416 Broome St., New York.
 Frevert Machinery Co., 18 Dey St., New
 York.

Hill, Clarke & Co., Boston, Mass.
 Marshall & Hushart Machinery Co., 62
 S. Canal St., Chicago, Ill.

Norton Emery Wheel Co., Worcester, Mass.
 Sterling Emery Wheel Mfg. Co., Tiffin, O.

H. A. Stocker Machinery Co., 20 S. Clin-
 ton St., Chicago, Ill.

Vandeyck-Churchill Co., 8 Dey St., N. Y.
 Vittried Wheel Co., Westfield, Mass.

O. C. Wormer Machinery Co., Detroit,
 Mich.

Grinders, Electric Driven—
 Bridgeport Safety Emery Wheel Co.,
 Bridgeport, Ct.

Chicago Wheel & Mfg. Co., 39-45 W. Ran-
 dolph St., Chicago, Ill.

Jas. Clark, Jr. & Co., Louisville, Ky.
 General Electric Co., Schenectady, N. Y.

Heald Machine Co., Worcester, Mass.
 Hisey-Wolf Machine Co., Cincinnati, O.

Niles-Bement-Pond Co., 111 Broadway,
 New York.

Northern Electrical Mfg. Co., Madison,
 Wis.

Ransom Mfg. Co., Oshkosh, Wis.
 Safety Emery Wheel Co., Springfield, O.

Stow Flexible Shaft Co., 26th & Callow-
 hill Sts., Philadelphia, Pa.

United States Electric Tool Co., Cincin-
 nati, O.

**Grinders, Foot and Hand
 Power—**

Chicago Wheel & Mfg. Co., 39-45 W. Ran-
 dolph St., Chicago, Ill.

Robertson Mfg. Co., Buffalo, N. Y.

**Grinders for Wire Nail
 Dies—**

Henry Perkins Co., Bridgewater, Mass.

**Grinders, Knife and Scis-
 sors—**

American Emery Wheel Works, Provi-
 dence, R. I.

Chicago Wheel & Mfg. Co., 39-45 W.
 Randolph St., Chicago, Ill.

Grinders, Lathe—
 Chicago Flexible Shaft Co., 124 La Salle
 Ave., Chicago, Ill.

Diamond Machine Co., Providence, R. I.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.

Springfield Mfg. Co., Bridgeport, Ct.

Grinders, Lathe Center—
 Chicago Flexible Shaft Co., 124 La Salle
 Ave., Chicago, Ill.

Chicago Wheel & Mfg. Co., 39-45 W.
 Randolph St., Chicago, Ill.

Jas. Clark, Jr. & Co., Louisville, Ky.
 Diamond Machine Co., Providence, R. I.

Gem Mfg. Co., Pittsburgh, Pa.
 Grant Mfg. & Machine Co., Bridgeport,
 Ct.

Heald Machine Co., Worcester, Mass.
 Hisey-Wolf Machine Co., Cincinnati, O.

Niles-Bement-Pond Co., 111 Broadway,
 New York.

Norton Grinding Co., Worcester, Mass.
 Pratt & Whitney Co., Hartford, Ct.

Dwight Slate Machine Co., Hartford, Ct.
 Stow Flexible Shaft Co., 26th & Callow-
 hill Sts., Philadelphia, Pa.

Grinders, Lawn Mower—
Chicago Wheel & Mfg. Co., 39-45 W.
Randolph St., Chicago, Ill.
Pike Mfg. Co., Pike, N. H.
Itoot Bros. Co., Plymouth, O.
Springfield Mfg. Co., Bridgeport, Ct.

Grinders, Mowing Machine Knife—
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Grinders, Planer Knife—
Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Defiance Machine Works, Defiance, O.
Diamond Machine Co., Providence, R. I.
Northampton Emery Wheel Co., Leeds, Mass.

Oliver Machinery Co., Grand Rapids, Mich.
Louis E. Rechlin & Bro., Cincinnati, O.
Safety Emery Wheel Co., Springfield, O.

Grinders, Plow Share—
Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
Safety Emery Wheel Co., Springfield, O.
Webster & Perks Tool Co., Springfield, O.

Grinders, Portable—
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Jas. Clark, Jr. & Co., Louisville, Ky.
Diamond Machine Co., Providence, R. I.
Gem Mfg. Co., Pittsburgh, Pa.
Helwig Mfg. Co., St. Paul, Minn.
Hisey-Wolf Machine Co., Cincinnati, O.
Niles-Bement-Pond Co., 111 Broadway, New York.
Stow Flexible Shaft Co., 25th & Callowhill Sts., Philadelphia, Pa.
Stow Mfg. Co., Binghamton, N. Y.

Grinders, Portable, Pneumatic—
Helwig Mfg. Co., St. Paul, Minn.

Grinders, Punch and Die—
Springfield Mfg. Co., Bridgeport, Ct.

Grinders, Reamer—
Automatic Machine Co., Greenfield, Mass.
Becker-Brainard Milling Machine Co., Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Cincinnati Milling Machine Co., Cincinnati, O.

Jas. Clark, Jr. & Co., Louisville, Ky.
Diamond Machine Co., Providence, R. I.
Garvin Machine Co., Spring & Varick Sts., New York.

Heald Machine Co., Worcester, Mass.
Hisey-Wolf Machine Co., Cincinnati, O.
Landis Tool Co., Waynesboro, Pa.
Niles-Bement-Pond Co., 111 Broadway, New York.

Norton Grinding Co., Worcester, Mass.
Pratt & Whitney Co., Hartford, Ct.

MERCHANTS.
Brown & Zortman Machinery Co., Pittsburgh, Pa.
Fairbanks Co., 416 Broome St., New York.
Frevert Machinery Co., 18 Dey St., New York.

Hill, Clarke & Co., Boston, Mass.
Marshall & Husehart Machinery Co., 62 S. Canal St., Chicago, Ill.

H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
C. O. Wormer Machinery Co., Detroit, Mich.

Grinders, Roll—
Bridgeport Safety Emery Wheel Co., Inc., Bridgeport, Ct.

Case Mfg. Co., Columbus, O.
Farrel Foundry & Machine Co., Ansonia, Ct.
E. Harrington, Son & Co. (Inc.), Philadelphia, Pa.

Mesta Machine Co., Pittsburgh, Pa.
Norton Grinding Co., Worcester, Mass.
Safety Emery Wheel Co., Springfield, O.
Springfield Mfg. Co., Bridgeport, Ct.

Grinders, Rotary Shear—
Springfield Mfg. Co., Bridgeport, Ct.

Grinders, Section, Mower and Reaper—
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Whitman & Barnes Mfg. Co., Chicago.

Grinders, Shafting—
Norton Grinding Co., Worcester, Mass.
Springfield Mfg. Co., Bridgeport, Ct.

Grinders, Sickle—
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Grinders, Surface—
Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.
Bignall & Keeler Mfg. Co., Edwardsville, Ill.

Blake & Johnson, Waterbury, Ct.
Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.

Brown & Sharpe Mfg. Co., Providence, R. I.
Builders Iron Foundry, Providence, R. I.
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Jas. Clark, Jr. & Co., Louisville, Ky.
Diamond Machine Co., Providence, R. I.
Garvin Machine Co., Spring and Varick Sts., New York.

Grant Mfg. & Machine Co., Bridgeport, Ct.
Hisey-Wolf Machine Co., Cincinnati, O.
Landis Tool Co., Waynesboro, Pa.

National Machine Co., Hartford, Ct.
Niles-Bement-Pond Co., 111 Broadway, New York.

Norton Grinding Co., Worcester, Mass.
Ransom Mfg. Co., Oshkosh, Wis.
Safety Emery Wheel Co., Springfield, O.
Wm. Sellers & Co. (Inc.), Philadelphia.
Springfield Mfg. Co., Bridgeport, Ct.
Stow Flexible Shaft Co., 25th & Callowhill Sts., Philadelphia, Pa.

MERCHANTS.
Baird Machinery Co., Pittsburgh, Pa.
Fairbanks Co., 416 Broome St., New York.
Frevert Machinery Co., 18 Dey St., New York.

Hill, Clarke & Co., Boston, Mass.
Marshall & Husehart Machinery Co., 62 S. Canal St., Chicago, Ill.
H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.

Vandyck-Churchill Co., 8 Dey St., N. Y.
C. O. Wormer Machinery Co., Detroit, Mich.

Grinders, Swing Frame—
Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.

Diamond Machine Co., Providence, R. I.
FAIRBANKS, MERCHANTS,
Fairbanks Co., 416 Broome St., New York.

Safety Emery Wheel Co., Springfield, O.
Sterling Emery Wheel Mfg. Co., Tiffin, O.

Grinders, Tool—
B. F. Barnes Co., Rockford, Ill.
W. F. & J. Barnes Co., Rockford, Ill.
Becker-Brainard Milling Machine Co.,
 Hyde Park, Mass.

Blake & Johnson, Waterbury, Ct.
Bridgeport Safety Emery Wheel Co.,
 Bridgeport, Ct.

Brown & Sharpe Mfg. Co., Providence, R. I.

Builders Iron Foundry, Providence, R. I.
Chicago Wheel & Mfg. Co., 39-45 W.
 Randolph St., Chicago, Ill.

Cincinnati Milling Machine Co., Cincinnati, O.

Jas. Clark, Jr. & Co., Louisville, Ky.

Cutaway Harrow Co., Higganum, Ct.

Diamond Machine Co., Providence, R. I.

Garvin Machine Co., Spring and Varick
 Sts., New York.

Gould & Eberhardt, Newark, N. J.

Heald Machine Co., Worcester, Mass.

Hisey-Wolf Machine Co., Cincinnati, O.

National Machine Co., Hartford, Ct.

Niles-Bement-Pond Co., 111 Broadway,
 New York.

Northampton Emery Wheel Co., Leeds,
 Mass.

Northern Electrical Mfg. Co., Madison,
 Wis.

Norton Grinding Co., Worcester, Mass.

Pike Mfg. Co., Pike, N. H.

Pratt & Whitney Co., Hartford, Ct.

Ransom Mfg. Co., Oshkosh, Wis.

Safety Emery Wheel Co., Springfield, O.

Wm. Sellers & Co. (Inc.), Philadelphia.

Dwight Slate Machine Co., Hartford, Ct.

Springfield Mfg. Co., Bridgeport, Ct.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

Washburn Shops, Worcester, Mass.

Webster & Perks Tool Co., Springfield,
 O.

FAIRBANKS, MERCHANTS.

Brown & Zortman Machinery Co., Pitts-
 burgh, Pa.

Fairbanks Co., 416 Broome St., New York.

Frevert Machinery Co., 18 Dey St., New
 York.

Hill, Clarke & Co., Boston, Mass.

Marshall & Huschart Machinery Co., 62
 S. Canal St., Chicago, Ill.

Norton Emery Wheel Co., Worcester,
 Mass.

H. A. Stocker Machinery Co., 20 S. Clin-
 ton St., Chicago, Ill.

Thornton Machinery Co., Providence,
 R. I.

Vandeyck-Churchill Co., 8 Dey St., N. Y.

Vitrified Wheel Co., Westfield, Mass.

C. O. Wormer Machinery Co., Detroit,
 Mich.

Grinders, Universal—
Brown & Sharpe Mfg. Co., Providence,
 R. I.

Cincinnati Milling Machine Co., Cincin-
 nati, O.

Garvin Machine Co., Spring and Varick
 Sts., New York.

Landis Tool Co., Waynesboro, Pa.

Niles-Bement-Pond Co., 111 Broadway,
 New York.

Norton Grinding Co., Worcester, Mass.

**Waterbury Farrel Foundry & Machine
 Co.,** Waterbury, Ct.

FAIRBANKS, MERCHANTS.

Fairbanks Co., 416 Broome St., New York.

Hill, Clarke & Co., Boston, Mass.

Marshall & Huschart Machinery Co., 62
 S. Canal St., Chicago, Ill.

Norton Emery Wheel Co., Worcester,
 Mass.

H. A. Stocker Machinery Co., 20 S. Clin-
 ton St., Chicago, Ill.

C. O. Wormer Machinery Co., Detroit,
 Mich.

Grinding Machines—
American Shearer Mfg. Co., Nashua,
 N. H.

E. C. Atkins & Co., Indianapolis, Ind.

B. F. Barnes Co., Rockford, Ill.

Becker-Brainard Milling Machine Co.,
 Hyde Park, Mass.

Chas. H. Bealy & Co., 15-21 Clinton St.,
 Chicago, Ill.

Blake & Johnson, Waterbury, Ct.

Bridgeport Safety Emery Wheel Co.,
 Bridgeport, Ct.

Brown & Sharpe Mfg. Co., Providence,
 R. I.

Builders Iron Foundry, Providence, R. I.

Chicago Wheel & Mfg. Co., 39-45 W.
 Randolph St., Chicago, Ill.

Cincinnati Milling Machine Co., Cincin-
 nati, O.

Jas. Clark, Jr. & Co., Louisville, Ky.

Diamond Machine Co., Providence, R. I.

Henry Disston & Sons, Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

**Espen-Lucas Machine Works, Broad and
 Noble Sts., Philadelphia, Pa.**

Garvin Machine Co., Spring and Varick
 Sts., New York.

Goodell-Pratt Co., Greenfield, Mass.

Grant Mfg. & Machine Co., Bridgeport,
 Ct.

Hanson & Van Winkle Co., Newark, N. J.

Hisey-Wolf Machine Co., Cincinnati, O.

**Kimball Bros. & Sprague, Brockton,
 Mass.**

Landis Tool Co., Waynesboro, Pa.

National Machine Co., Hartford, Ct.

Niles-Bement-Pond Co., 111 Broadway,
 New York.

Northampton Emery Wheel Co., Leeds,
 Mass.

Norton Grinding Co., Worcester, Mass.

Henry Perkins Co., Bridgewater, Mass.

Pratt & Whitney Co., Hartford, Ct.

Ransom Mfg. Co., Oshkosh, Wis.

Richard Mfg. Co., Bloomsburgh, Pa.

Robertson Mfg. Co., Buffalo, N. Y.

Rock River Machine Co., Janesville, Wis.

Safety Emery Wheel Co., Springfield, O.

Dwight Slate Machine Co., Hartford, Ct.

Springfield Mfg. Co., Bridgeport, Ct.

Star Corundum Wheel Co., Detroit, Mich.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

Stow Flexible Shaft Co., 26th and Callow-
 hill Sts., Philadelphia, Pa.

Stow Mfg. Co., Binghamton, N. Y.

Vitrified Wheel Co., Westfield, Mass.

Washburn Shops, Worcester, Mass.

**Waterbury Farrel Foundry & Machine
 Co.,** Waterbury, Ct.

Webster & Perks Tool Co., Springfield, O.

Zucker & Levett & Loeb Co., 526-530 West
 25th St., New York.

FAIRBANKS, MERCHANTS.

George E. Amick, 107 Liberty St., N. Y.

American Emery Wheel Works, Providence, R. I.
Baird Machinery Co., Pittsburgh, Pa.
Carlin Machinery & Supply Co., Inc., Allegheny, Pa.
Columbus Equipment Co., Columbus, O.
J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
Fairbanks Co., 416 Broome St., New York.
Frevet Machinery Co., 18 Dey St., New York.

Hannon & Finton, Springfield, Mass.
Hill, Clarke & Co., Boston, Mass.
Huntington Machinery & Supply Co., Wilkes-Barre, Pa.
Manning, Maxwell & Moore, 85 Liberty St., New York.
Marshall & Huchart Machinery Co., 62-64 So. Canal St., Chicago, Ill.
McDowell, Stocker & Co., 59 So. Canal St., Chicago, Ill.
Moth & Merryweather Machinery Co., Cleveland, O.
Norton Emery Wheel Co., Worcester, Mass.
Prentiss Tool & Supply Co., 115 Liberty St., New York.
H. A. Rogers Co., 19 John St., New York.
H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
Thornton Machine Co., Providence, R. I.
Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.
Vandyck-Churchill Co., 8 Dey St., N. Y.
C. C. Wormer Machinery Co., Detroit, Mich.

Grinding Machines, Bush-

ing—
Grant Mfg. & Machine Co., Bridgeport, Ct.
Landis Tool Co., Waynesboro, Pa.
Pratt & Whitney Co., Hartford, Ct.

Grinding Wheels—

(See Wheels, Grinding.)

Grindstone Boxes—

Niles-Bement-Pond Co., 111 Broadway, New York.
Wm. Sellers & Co. (Inc.), Philadelphia.
Grindstone Fixtures—
Athol Machine Co., Athol, Mass.
Atlantic Grindstone Co., Providence, R. I.
Cleveland Stone Co., Cleveland, O.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
W. & B. Douglas, Middletown, Ct.
Fairbanks Co., 416 Broome St., New York.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.
Reading Hardware Co., Reading, Pa.
Susquehanna Casting Co., Wrightsville, Pa.
Wrightsville Hardware Co., Wrightsville, Pa.

Grindstone Truing De-

vices—
Athol Machine Co., Athol, Mass.
Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.

Grindstones, Family—

Athol Machine Co., Athol, Mass.
Atlantic Grindstone Co., Providence, R. I.
Cleveland Stone Co., Cleveland, O.
Fairbanks Co., 416 Broome St., New York.
Millers Falls Co., 28 Warren St., N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pike Mfg. Co., Pike, N. H.
Pleuger & Henger Mfg. Co., St. Louis, Mo.
Reading Hardware Co., Reading, Pa.

Grindstones, Mounted—

Athol Machine Co., Athol, Mass.
Atlantic Grindstone Co., Providence, R. I.
Cleveland Stone Co., Cleveland, O.
Niles-Bement-Pond Co., 111 Broadway, New York.

Richards Mfg. Co., Aurora, Ill.
Wagner Mfg. Co., Cedar Falls, Ia.
Whitman & Barnes Mfg. Co., Chicago.

Grindstones, Razor—

Pike Mfg. Co., Pike, N. H.
Grindstones, Unmounted—
Atlantic Grindstone Co., Providence, R. I.
Cleveland Stone Co., Cleveland, O.
Pike Mfg. Co., Pike, N. H.

Grips, Bicycle—

J. S. Leng's Son & Co., 33 Murray St., New York.

Grips, Cable—

Broderick & Bascom Rope Co., St. Louis.
A. Leschen & Sons Rope Co., St. Louis.
Grips, Cord and Line—
Samson Cordage Works, Boston, Mass.

Grips, Nail—

Vaughan & Bushnell Mfg. Co., Chicago.
Grips, Wood, Malleable D's—
Avery Stamping Co., Cleveland, O.

Grommets, Metallic—

A. S. Morse Co., Boston, Mass.
Arthur T. Rutter & Co., 256 Broadway, New York.

Waterbury Brass Co., Waterbury, Ct.

Grooming Machines—

American Shearer Mfg. Co., Nashua, N. H.
Chicago Flexible Shaft Co., La Salle Ave. & Ontario St., Chicago, Ill.

Groovers, Sidewalk—

(See Tools, Cement.)

Grooving Machines—

Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pratt & Whitney Co., Hartford, Ct.

Vaughan & Bushnell Mfg. Co., Chicago.

Grubbing Machines—

Monarch Grubber Co., Lone Tree, Ia.

Guards, Bicycle—

Sturges & Burn Mfg. Co., Chicago, Ill.
Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.

Guards, Corner Wheel—

Rock River Mfg. Co., Dixon, Ill.

Guards, &c., Elevator—

Buffalo Wire Works Co., Buffalo, N. Y.
Clinton Wire Cloth Co., Clinton, Mass.
Forest City Steel & Iron Co., Cleveland, O.

Howard & Morse, 45 Fulton St., N. Y.

Ludlow-Saylor Wire Co., St. Louis, Mo.

W. S. Tyler Co., Cleveland, O.

Wright Wire Co., Worcester, Mass.

Guards, Flower and To-

mato—
De Kalb Fence Co., De Kalb, Ill.

Spencer Wire Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Guards, Gas Jet—

(See Guards, Lamp and Light.)

- Guards, Grate—**
 Buffalo Wire Works Co., Buffalo, N. Y.
 Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
 Estey Wire Works Co., 59 Fulton St., New York.
 Gilbert & Bennett Mfg. Co., 277 Broadway, New York.
 Glen Mfg. Co., Ellwood City, Pa.
 Howard & Morse, 45 Fulton St., N. Y.
 Ludlow-Saylor Wire Co., St. Louis, Mo.
 John P. Smith & Co., New Haven, Ct.
- Guards, Grave—**
 Adam's Steel & Wire Works, Joliet, Ill.
 Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
 Estey Wire Works Co., 59 Fulton St., New York.
 Gilbert & Bennett Mfg. Co., 277 Broadway, New York.
 Glen Mfg. Co., Ellwood City, Pa.
 Ludlow-Saylor Wire Co., St. Louis, Mo.
 Spencer Wire Co., Worcester, Mass.
- Guards, Hat—**
 American Ring Co., Waterbury, Ct.
- Guards, Lamp and Light—**
 Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
 Estey Wire Works Co., 59 Fulton St., New York.
 Gilbert & Bennett Mfg. Co., 277 Broadway, New York.
 Howard & Morse, 45 Fulton St., N. Y.
 Ludlow-Saylor Wire Co., St. Louis, Mo.
 Parker Wire Goods Co., Worcester, Mass.
 Wire Goods Co., Worcester, Mass.
- Guards, Lawn—**
 Anchor Post Iron Works, 41 Park Row, New York.
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
 Enterprise Foundry & Fence Co., Indianapolis, Ind.
 Spencer Wire Co., Worcester, Mass.
 Wright Wire Co., Worcester, Mass.
- Guards, Radiator—**
 Clinton Wire Cloth Co., Clinton, Mass.
 Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.
- Guards, Railroad Cattle—**
 Sheffield Car Co., Three Rivers, Mich.
- Guards, Razor—**
 F. A. Reichardt & Co., 391 Broadway, New York.
- Guards, Saw—**
 E. C. Atkins & Co., Indianapolis, Ind.
- Guards, Skylight—**
 (See Iron Work, Builders')
- Guards, Snow and Ice—**
 Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
 Cleveland Wire Spring Co., Cleveland, O.
 Forest City Steel & Iron Co., Cleveland, O.
 Parker Wire Goods Co., Worcester, Mass.
 Spencer Wire Co., Worcester, Mass.
- Guards, Tree—**
 Anchor Post Iron Works, 41 Park Row, New York.
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
 Buffalo Iron Works Co., Buffalo, N. Y.
 Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
 De Kalb Fence Co., De Kalb, Ill.
 Estey Wire Works Co., 59 Fulton St., New York.
- Forest City Steel & Iron Co., Cleveland, O.**
 Glen Mfg. Co., Ellwood City, Pa.
 Howard & Morse, 45 Fulton St., N. Y.
 Kramer Bros. Foundry Co., Dayton, O.
 Ludlow-Saylor Wire Co., St. Louis, Mo.
 Ohio Structural Iron Co., Sandusky, O.
 Spencer Wire Co., Worcester, Mass.
 Stewart Iron Works Co., Cincinnati, O.
 Van Dorn Iron Works Co., Cleveland, O.
 Wright Wire Co., Worcester, Mass.
- Guards, Trouser—**
 Revin Bros. Mfg. Co., Easthampton, Ct.
 Tower & Lyon Co., 95 Chambers St., New York.
- Guards, Wheel—**
 Kramer Bros. Foundry Co., Dayton, O.
- Guards, Window, Iron—**
 (See Iron, Brass and Bronze, Ornamental.)
- Guards, Window, Wire—**
 Adam's Steel & Wire Works, Joliet, Ill.
 Anchor Post Iron Works, 41 Park Row, New York.
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
 Buffalo Wire Works Co., Buffalo, N. Y.
 City Forge & Iron Works, Dayton, O.
 Clinton Wire Cloth Co., Clinton, Mass.
 Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
 Enterprise Foundry & Fence Co., Indianapolis, Ind.
 Estey Wire Works Co., 59 Fulton St., New York.
 Forest City Steel & Iron Co., Cleveland, O.
 Howard & Morse, 45 Fulton St., N. Y.
 Glen Mfg. Co., Ellwood City, Pa.
 Ludlow-Saylor Wire Co., St. Louis, Mo.
 Michigan Wire Cloth Co., Detroit, Mich.
 Ohio Structural Iron Co., Sandusky, O.
 J. W. Paxson Co., Philadelphia, Pa.
 John P. Smith & Co., New Haven, Ct.
 Van Dorn Iron Works Co., Cleveland, O.
 Wright Wire Co., Worcester, Mass.
- Gudgeons, Snool—**
 Wire Goods Co., Worcester, Mass.
- Guides, Band Saw—**
 E. C. Atkins & Co., Indianapolis, Ind.
 Defiance Machine Works, Defiance, O.
 Henry Diaston & Sons, Philadelphia, Pa.
 Simonds Mfg. Co., Fitchburg, Mass.
- Guides, Draw Shave—**
 Goodell-Pratt Co., Greenfield, Mass.
- Guides, Elevator—**
 Standard Gauge Steel Co., Beaver Falls, Pa.
- Guides, Engine, Shaves for—**
 Finished Steel Co., Youngstown, O.
- Guides, Sheet and Rope—**
 W. & J. Tiebout, 118 Chambers St., N. Y.
- Gummer Cutters—**
 (See Cutters, Gummer.)
- Gummers, Saw—**
 E. C. Atkins & Co., Indianapolis, Ind.
 Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
 Henry Diaston & Sons, Philadelphia, Pa.
 Simonds Mfg. Co., Fitchburg, Mass.
 Sterling Emery Wheel Mfg. Co., Tiffin, O.
- Gun Carriages, Forgings—**
 (See Carriages, Forgings.)
- Gun Implements—**
 Handy Things Co., Ludington, Mich.
 Ideal Mfg. Co., New Haven, Ct.
 Union Hardware Co., Torrington, Ct.

- Waterbury Brass Co.**, Waterbury, Ct.
Gun Machinery.
Detrick & Harvey Machine Co., Baltimore, Md.
Garvin Machine Co., Spring, & Varick Sts., New York.
Niles-Bement-Pond Co., 111 Broadway, New York.
Pratt & Whitney Co., Hartford, Ct.
Gun Stock Machinery.
Defiance Machine Works, Defiance, O.
Gun Wads.—
 (See Wads, Gun.)
Guns, Automatic Machine.—
 Colt's Pat. Fire Arms Mfg. Co., Hartford, Ct.
Guns, Gatling.—
 Colt's Pat. Fire Arms, Mfg. Co., Hartford, Ct.
Guns, Insect Powder.—
 Goodell Co., Antrim, N. H.
Guns, Shot.—
 N. R. Davis & Sons, Assonet, Mass.
 Marlin Fire Arms Co., New Haven, Ct.
 Remington Arms Co., 313 Broadway, N. Y.
 C. S. Shattuck, Hatfield, Mass.
 J. Stevens Arms & Tool Co., Chicopee Falls, Mass.
 Tobin Arms Mfg. Co., Norwich, Ct.
 Union Fire Arms Co., Toledo, O.
Gutters.—
 (See Eave Troughs and Gutters.)
Gutters in Rolls.—
 (See Valleys and Gutters in Rolls.)
Guy Strand Wire.—
 (See Wire Strand Guys, Galvanized.)
Hack Saws, Blades and Frames.—
 (See Saws, Hack, Blades and Frames.)
Hack Saws, Power.—
 (See Saws, Power, Hack.)
Hair Brushes.—
 (See Brushes, Silver Plated.)
Hair, Curled.—
 Baeder, Adamson & Co., 730 Market St., Philadelphia, Pa.
Hair Felting.—
 (See Felting, Hair.)
Hairpin Wire.—
 (See Wire, Hairpin.)
Half Hatchets.—
 (See Hatchets, Shingling, Half, &c.)
Halter Buckles, Chains, &c.—
 (See Buckles, Chains, &c.)
Halters, Rope, Web, &c.—
 Covert Mfg. Co., Troy, N. Y.
Hammer Handles.—
 (See Handles, Hammer.)
Hammer Wedges.—
 (See Wedges, Hammer and Hatchet.)
Hammers, Belt Driven.—
 Beaudry & Co., Boston, Mass.
 Scranton & Co., New Haven, Ct.
Hammers, Bill Posters.
Long Handle.—
 Kilborn & Bishop Co., New Haven, Ct.
 Arthur R. Robertson, Boston, Mass.
Hammers, Blacksmiths' Hand.—
 Billings & Spencer Co., Hartford, Ct.
 Heller Bros. Co., Newark, N. J.
 Solid Steel Tool & Forge Co., Tarentum, Pa.
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
Hammers, Bollermakers.—
 Billings & Spencer Co., Hartford, Ct.
 Ingersoll-Rand Co., 11 Broadway, New York.
 Solid Steel Tool & Forge Co., Tarentum, Pa.
Hammers, Brass.—
 Goodell-Pratt Co., Greenfield, Mass.
Hammers, Brick.—
 Marshalltown Trowel Co., Marshalltown, Ia.
Hammers, Bronze.—
 Phosphor Bronze Smelting Co., Ltd., 220 Washington Ave., Philadelphia.
Hammers, Carriage Irons.—
 Heller Bros. Co., Newark, N. J.
Hammers, Cast Iron Claw.—
 Arcade Mfg. Co., Freeport, Ill.
 Columbia Grey Iron Casting Co., Columbia, Pa.
 Fanner Mfg. Co., Cleveland, O.
 A. C. Williams, Ravenna, O.
Hammers, Chain Link Welding.—
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
Hammers, Chipping.—
 Chester B. Albree Iron Works Co., Allegheny, Pa.
 Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
 Heller Bros. Co., Newark, N. J.
 Helwig Mfg. Co., St. Paul, Minn.
 Ingersoll-Rand Co., 11 Broadway, New York.
 H. Mueller Mfg. Co., Decatur, Ill.
Hammers, Confectioners.—
 Rock River Mfg. Co., Dixon, Ill.
Hammers, Copper.—
 Merchant & Evans Co., Philadelphia, Pa.
Hammers, Copper Tipped.—
 Union Hardware Co., Torrington, Ct.
Hammers, Drop.—
 Alliance Machine Co., Alliance, O.
 American Tube & Stamping Co., Bridgeport, Ct.
 Billings & Spencer Co., Hartford, Ct.
 Blake & Johnson, Waterbury, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Chambersburg Engineering Co., Chambersburg, Pa.
 Gould & Eberhardt, Newark, N. J.
 Heppenstall Forge & Knife Co., Pittsburgh, Pa.
 Chas. Leffler & Co., Brooklyn, N. Y.
 Long & Allstatter Co., Hamilton, O.
 Merrill Bros., Brooklyn, N. Y.
 Priner & Peck Mfg. Co., New Haven, Ct.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 George A. Ohl & Co., Newark, N. J.
 Pratt & Whitney Co., Hartford, Ct.
 Fred M. Swaine Co., St. Louis, Mo.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
 Williams, White & Co., Moline, Ill.
MERCHANTS.
 George E. Affleck, 107 Liberty St., N. Y.
 J. H. Dawson, Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 Fairbanks Co., 416 Broome St., New York.
 Freyort Machinery Co., 18 Dey St., New York.
 Hill, Clarke & Co., Boston, Mass.

- Marshall & Huschart Machinery Co., 62-64 So. Canal St., Chicago, Ill.
 Prentiss Tool & Supply Co., 115 Liberty St., New York.
 H. A. Rogers Co., 19 John St., New York.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
 Stiles-Morse Co., Western Union Bldg., Chicago, Ill.
 Thornton Machinery Co., Providence, R. I.
 Vandyck-Churchill Co., 8 Dey St., N. Y.
 Wickes Bros., Saginaw, Mich.
 C. C. Wormer Machinery Co., Detroit, Mich.
- Hammers, Drop, for Metal Cellings, &c.**
 Chambersburg Engineering Co., Chambersburg, Pa.
 Merrill Bros., Brooklyn, N. Y.
- Hammers, Electric Chipping.**
 Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
- Hammers, Engineers'.**
 Heller Bros. Co., Newark, N. J.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Wiebusch & Hilger, 9-15 Murray St., New York.
- Hammers, Farriers'.**
 Heller Bros. Co., Newark, N. J.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Hammers, Flogging.**
 Hubbard & Co., Pittsburgh, Pa.
- Hammers, Foot Power.**
 Arcade Mfg. Co., Freeport, Ill.
 C. E. Sutton Co., Toledo, O.
- Hammers, Granite Workers'.**
 Trow & Holden, Barre, Vt.
- Hammers, Heavy.**
 (See Sledges and Hammers.)
- Hammers, Helve.**
 Long & Allstatter Co., Hamilton, O.
- Hammers, Machinists'.**
 Billings & Spencer Co., Hartford, Ct.
 Heller Bros. Co., Newark, N. J.
 Solid Steel Tool & Forge Co., Tarentum, Pa.
 Susquehanna Casting Co., Wrightsville, Pa.
 Vaughan & Bushnell Mfg. Co., Chicago.
 Wiebusch & Hilger, 9-15 Murray St., New York.
- Hammers, Magnetic.**
 Arcade Mfg. Co., Freeport, Ill.
 Billings & Spencer Co., Hartford, Ct.
 Kilborn & Bishop Co., New Haven, Ct.
 Landers, Frary & Clark, New Britain, Ct.
 Northern Electrical Mfg. Co., Madison, Wis.
 Arthur R. Robertson, Boston, Mass.
 Stanley Rule & Level Co., New Britain, Ct.
 Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
- Hammers, Meat.**
 (See Pounders, Steak.)
- Hammers, Nail.**
 Columbia Grey Iron Casting Co., Columbia, Pa.
- Gray Iron Foundry Co., Reading, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Potter Mfg. Co., Geneva, O.
 Pritchard-Strong Co., Rochester, N. Y.
 Rock River Mfg. Co., Dixon, Ill.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Susquehanna Casting Co., Wrightsville, Pa.
 Vaughan & Bushnell Mfg. Co., Chicago.
 Wiebusch & Hilger, 9-15 Murray St., New York.
 Wrightsville Hardware Co., Wrightsville, Pa.
- Hammers, Paving.**
 E. C. Atkins & Co., Indianapolis, Ind.
 Susquehanna Casting Co., Wrightsville, Pa.
- Hammers, Planishing.**
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Hammers, Pneumatic.**
 Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
 Helwig Mfg. Co., St. Paul, Minn.
 Ingersoll-Rand Co., 11 Broadway, New York.
- Hammers, Power.**
 Beaudry & Co., Boston, Mass.
 C. C. Bradley & Son, Syracuse, N. Y.
 Chambersburg Engineering Co., Chambersburg, Pa.
 Diemel & Eisenhardt, 1308 Howard St., Philadelphia, Pa.
 Fairbanks Co., 416 Broome St., New York.
 R. E. Kidder, Worcester, Mass.
 J. H. Lingle, Bellefonte, Pa.
 Long & Allstatter Co., Hamilton, O.
 Merrill Bros., Brooklyn, N. Y.
 Miner & Peck Mfg. Co., New Haven, Ct.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Novelty Iron Works, Dubuque, Ia.
 Scranton & Co., New Haven, Ct.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
 Williams, White & Co., Moline, Ill.
- MERCHANTS.
 J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 Frevert Machinery Co., 18 Dey St., New York.
 Hill, Clarke & Co., Boston, Mass.
 Marshall & Huschart Machinery Co., 62-64 So. Canal St., Chicago, Ill.
 Motch & Merryweather Machinery Co., Cleveland, O.
 H. A. Rogers Co., 19 John St., New York.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
 L. F. Seyfert's Sons, 437-441 No. 3d St., Philadelphia, Pa.
 Stiles-Morse Co., Western Union Bldg., Chicago, Ill.
 Thornton Machinery Co., Providence, R. I.
 Vandyck-Churchill Co., 8 Dey St., N. Y.
 Wickes Bros., Saginaw, Mich.
 C. C. Wormer Machinery Co., Detroit, Mich.
- Hammers, Prospecting.**
 Susquehanna Casting Co., Wrightsville, Pa.

- Hammers, Raising—**
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Hammers, Riveting—**
Chester B. Albree Iron Works Co., Allegheny, Pa.
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
Helwig Mfg. Co., St. Paul, Minn.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Susquehanna Casting Co., Wrightsville, Pa.
Vaughan & Bushnell Mfg. Co., Chicago.
- Hammers, Rotary Riveting—**
F. B. Shuster & Co., New Haven, Ct.
Williams, White & Co., Moline, Ill.
- Hammers, Saddlers' and Upholsterers'—**
Arcade Mfg. Co., Freeport, Ill.
Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
Columbia Grey Iron Co., Columbia, Pa.
Fanner Mfg. Co., Cleveland, O.
Kilborn & Bishop Co., New Haven, Ct.
Rock River Mfg. Co., Dixon, Ill.
Smith & Hemenway Co., 296 Broadway, New York.
Smith & Hemenway Co., 108-110 Duane St., New York.
Wiebusch & Hilger, 9-15 Murray St., New York.
A. C. Williams, Ravenna, O.
Wrightsville Hardware Co., Wrightsville, Pa.
- Hammers, Setting—**
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Hammers, Shoe—**
Fanner Mfg. Co., Cleveland, O.
John C. Kupferle, St. Louis, Mo.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Pleuger & Henger Mfg. Co., St. Louis, Mo.
Root Bros. Co., Plymouth, O.
Louis Sacks, Newark, N. J.
Susquehanna Casting Co., Wrightsville, Pa.
Wiebusch & Hilger, 9-15 Murray St., New York.
A. C. Williams, Ravenna, O.
Wrightsville Hardware Co., Wrightsville, Pa.
- Hammers, Slaters'—**
Smith & Hemenway Co., 108-110 Duane St., New York.
Susquehanna Casting Co., Wrightsville, Pa.
- Hammers, Steam—**
Alliance Machine Co., Alliance, O.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Chambersburg Engineering Co., Chambersburg, Pa.
Dienelt & Eisenhardt, 1308 Howard St., Philadelphia, Pa.
Richard Dudgeon, 24 Columbia St., N. Y.
Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.
McDougall & Potter Co., 602-612 W. 55th St., New York.
- Niles-Bement-Pond Co., 111 Broadway, New York.
Wm. Sellers & Co. (Inc.), Philadelphia.
- MERCHANTS.**
George E. Amick, 107 Liberty St., N. Y.
Baird Machinery Co., Pittsburgh, Pa.
Carlin Machinery & Supply Co., Inc., Allegheny, Pa.
J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
Barclay M. Everson, Pittsburgh, Pa.
Fairbanks Co., 416 Broome St., New York.
Hill, Clarke & Co., Boston, Mass.
Marshall & Hushart Machinery Co., 62 S. Canal St., Chicago, Ill.
Motch & Merzweather Machinery Co., Cleveland, O.
New York Machinery Depot, 120 Broadway, New York.
Phillips-Lafitte Co., Pennsylvania Bldg., Philadelphia, Pa.
Prentiss Tool & Supply Co., 115 Liberty St., New York.
H. A. Rogers Co., 19 John St., New York.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
L. F. Seyfert's Sons, 437-441 No. 3d St., Philadelphia, Pa.
Thornton Machinery Co., Providence, R. I.
Vandeyck-Churchill Co., 8 Dey St., N. Y.
O. C. Wormer Machinery Co., Detroit, Mich.
- Hammers, Steam Helve—**
Charles F. Elmes Engineering Works, Morgan and Fulton Sts., Chicago, Ill.
- Hammers, Stone Cutters'—**
Ingersoll-Rand Co., 11 Broadway, New York.
- Hammers, Tack—**
Arcade Mfg. Co., Freeport, Ill.
Billings & Spencer Co., Hartford, Ct.
Columbia Grey Iron Co., Columbia, Pa.
Fanner Mfg. Co., Cleveland, O.
Kilborn & Bishop Co., New Haven, Ct.
Landers, Frary & Clark, New Britain, Ct.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Potter Mfg. Co., Geneva, O.
Arthur R. Robertson, Boston, Mass.
Smith & Hemenway Co., 108-110 Duane St., New York.
Stanley Rule & Level Co., New Britain, Ct.
Susquehanna Casting Co., Wrightsville, Pa.
Wiebusch & Hilger, 9-15 Murray St., New York.
A. C. Williams, Ravenna, O.
Wrightsville Hardware Co., Wrightsville, Pa.
- Hammers, Tinners'—**
C. S. Mersick & Co., New Haven, Ct.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Hammers, Tire Welding—**
Williams, White & Co., Moline, Ill.
- Hammers, Turning—**
Billings & Spencer Co., Hartford, Ct.
Reher Bros. Co., Newark, N. J.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Susquehanna Casting Co., Wrightsville, Pa.
- Hammers, Vacuum—**
Williams, White & Co., Moline, Ill.

Hamamock Cords, Hooks, &c.

(See Cords, Hooks, &c.)

Hammock Trapeze Bars—

(See Supports and Bars, Hammock.)

I. E. Palmer, Middletown, Ct.

Hand Bells, &c.—

(See Bells, &c.)

Hand Cuffs and Leg Irons—

Tower & Lyon Co., 95 Chambers St., New York.

Hand Hoist Carriers—

(See Carriers, Hand Hoist.)

Hand Hole Punches—

(See Punches, Hand and Tube Hole.)

Hand Rail Brackets, Screws—

(See Brackets, Screws.)

Hand Screws, Vises—

(See Screws, Vises.)

Handle Bars—

(See Bicycle Parts.)

Handle Machines, Plow—

DeLance Machine Works, DeLance, O.

Handles and Heads, Brace Bit—

E. B. Estes & Sons, 45-47 John St., N. Y.

Handles and Heads, Duster—

Baker McMillen Co., Akron, O.

Handles and Locks, Store Door—

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Handles, Ash Can—

(See Tinner's Trimmings.)

Handles, Auger—

Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.

E. B. Estes & Sons, 45-47 John St., N. Y.

W. R. Hartigan, Collinsville, Ct.

Irwin Auger Bit Co., Wilmington, O.

Millers Falls Co., 28 Warren St., N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sandusky Tool Co., Sandusky, O.

Handles, Automobile—

E. B. Estes & Sons, 45-47 John St., New York.

Handles, Axe, Pick, Sledge, &c.

E. B. Estes & Sons, 45-47 John St., N. Y.

Wm. R. Hartigan, Collinsville, Ct.

Walter A. Zelnicker Supply Co., St. Louis.

Handles, Bag, Box, &c.—

R. C. Jenkinson & Co., Newark, N. J.

Handles, Basket, Wire—

E. H. Titchener & Co., Binghamton, N. Y.

Handles, Boiler—

(See Tinner's Trimmings.)

Handles, Broom—

American Fork & Hoe Co., Cleveland, O.

National Handle Co., Cleveland, O.

Handles, Brush, Duster, &c.—

E. B. Estes & Sons, 45-47 John St., N. Y.

Handy Things Co., Ludington, Mich.

W. R. Hartigan, Collinsville, Ct.

Udell Works, Indianapolis, Ind.

Handles, Burnisher—

Louis Sacks, Newark, N. J.

Handles, Cake Turner—

Handy Things Co., Ludington, Mich.

Handles, Carriage Door—

Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

Handles, Carving Tool—

Chapin-Stephens Co., Pine Meadow, Ct.

Handles, Chest, Shutter, &c.—

Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Rock River Mfg. Co., Dixon, Ill.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Schreiber & Conchar Mfg. Co., Dubuque, Ia.

Stanley Works, New Britain, Ct.

Susquehanna Casting Co., Wrightsville, Pa.

Taylor & Boggis Foundry Co., Cleveland.

W. & J. Tiebout, 118 Chambers St., N. Y.

A. C. Williams, Ravenna, O.

Wrightsville Hardware Co., Wrightsville, Pa.

Handles, Chisel, File, Awl, &c.—

Baker, McMillen Co., Akron, O.

Buck Bros., Millbury, Mass.

Chapin-Stephens Co., Pine Meadow, Ct.

E. B. Estes & Sons, 45-47 John St., N. Y.

Handy Things Co., Ludington, Mich.

W. R. Hartigan, Collinsville, Ct.

C. E. Jennings & Co., 42 Murray St., New York.

Nicholson File Co., Providence, R. I.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sandusky Tool Co., Sandusky, O.

Stanley Rule & Level Co., New Britain, Ct.

Union Hardware Co., Torrington, Ct.

Handles, Chisel, Leather Head—

C. E. Jennings & Co., 42 Murray St., New York.

Handles, Cork Screw—

E. B. Estes & Sons, 45-47 John St., New York.

Handy Things Co., Ludington, Mich.

W. R. Hartigan, Collinsville, Ct.

Rice Mfg. Co., New Durham, N. H.

Handles, Corn Knife—

Baker, McMillen Co., Akron, O.

Handles, Corn Popper—

(See Handles, Grass Hook, &c.)

Handles, Crank—

Handy Things Co., Ludington, Mich.

Handles, Crosscut Saw—

E. C. Atkins & Co., Indianapolis, Ind.

George H. Bishop & Co., Cincinnati, O.

Henry Disston & Sons, Philadelphia, Pa.

E. B. Estes & Sons, 45-47 John St., N. Y.

C. E. Jennings & Co., 42 Murray St., New York.

National Saw Co., Newark, N. J.

Potter Mfg. Co., Geneva, O.

Sandusky Tool Co., Sandusky, O.

Simonds Mfg. Co., Fitchburg, Mass.

Handles, Curry Comb—

Baker, McMillen Co., Akron, O.

E. B. Estes & Sons, 45-47 John St., N. Y.

Handy Things Co., Ludington, Mich.

W. R. Hartigan, Collinsville, Ct.

Rice Mfg. Co., New Durham, N. H.

Handles, Cutlery—

E. B. Estes & Sons, 45-47 John St., New York.

Handles, Damper—

Baker, McMillen Co., Akron, O.

Handles, Detachable Tool—

Millers Falls Co., 28 Warren St., N. Y.

Nicholson File Co., Providence, R. I.

Handles, Dipper—

Handy Things Co., Ludington, Mich.

Handles, Door—

Columbia Grey Iron Co., Columbia, Pa.
Lawrence Bros., Sterling, Ill.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Taylor & Boggie Foundry Co., Cleveland.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Handles, Door Bell—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Handles, Drawer—

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Handles, Electric Switch—

E. B. Estes & Sons, 45-47 John St., New York.

Handles, Enameled and Plain—

Baker, McMillen Co., Akron, O.
Handy Things Co., Ludington, Mich.
W. R. Hartigan, Collinsville, Ct.
Rice Mfg. Co., New Durham, N. H.
Handles, Fork, Spade, Shovel, Scoop, Hoe, Rake, &c.—
American Fork & Hoe Co., Cleveland, O.
Avery Stamping Co., Cleveland, O.
National Handle Co., Cleveland, O.

Handles, Gimlet—

W. R. Hartigan, Collinsville, Ct.

Handles, Grass Hook, Hedge

Shear, Ice Pick, Cleaver, Crank, Corn Knife, Corn Popper, Trowel, &c.—
E. B. Estes & Sons, 45-47 John St., N. Y.
Handy Things Co., Ludington, Mich.

Handles, Hammer—

E. B. Estes & Sons, 45-47 John St., N. Y.
W. R. Hartigan, Collinsville, Ct.
Rock River Mfg. Co., Dixon, Ill.
Louis Sacks, Newark, N. J.

Handles, Hand Saw—

(See Handles, Plane and Saw.)

Handles, Hatchet—

Rock River Mfg. Co., Dixon, Ill.

Handles, Hollow Metal—

Standard Welding Co., Cleveland, O.

Handles, Knife, Wrench, &c.—

E. B. Estes & Sons, 45-47 John St., N. Y.
W. R. Hartigan, Collinsville, Ct.
Rice Mfg. Co., New Durham, N. H.

Handles, Ladle—

Baker, McMillen Co., Akron, O.

Handles, Law Mower—

Wm. R. Hartigan, Collinsville, Ct.

Handles, Lifting—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Handles, Machine—

Reading Hardware Co., Reading, Pa.
Billings & Spencer Co., Hartford, Ct.
W. J. Clark Co., Salem, O.
Keystone Drop Forge Works, Chester, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Richmond Forgings Corporation, Richmond, Va.

Transue & Williams Co., Alliance, O.

Whitman & Barnes Mfg. Co., Chicago.
J. H. Williams & Co., Brooklyn, N. Y.

Handles, Package—

E. B. Estes & Sons, 45-47 John St., New York.

Handles, Rail—

E. B. Estes & Sons, 45-47 John St., New York.

Handles, Plane and Saw—

E. C. Atkins & Co., Indianapolis, Ind.
Geo. H. Bishop & Co., Cincinnati, O.
Chapin-Stephens Co., Pine Meadow, Ct.
Henry Diston & Sons, Philadelphia, Pa.
E. B. Estes & Sons, 45-47 John St., N. Y.
C. E. Jennings & Co., 42 Murray St., New York.

National Saw Co., Newark, N. J.

Sandusky Tool Co., Sandusky, O.
Simonds Mfg. Co., Fitchburg, Mass.
Stanley Rule & Level Co., New Britain, Ct.

Handles, Planters' Eye Hoe—

National Handle Co., Cleveland, O.

Handles, Plate—

(See Kitchen Articles, Wire.)

Handles, Potato Masher—

Handy Things Co., Ludington, Mich.

Handles, Putty Knife—

W. R. Hartigan, Collinsville, Ct.

Handles, Razor Strip—

Handy Things Co., Ludington, Mich.

Handles, Rice Boiler—

Baker, McMillen Co., Akron, O.

Handles, Rolling Pin—

Handy Things Co., Ludington, Mich.

Handles, Rubber Stamp—

Baker, McMillen Co., Akron, O.
E. B. Estes & Sons, 45-47 John St., New York.

Handy Things Co., Ludington, Mich.

W. R. Hartigan, Collinsville, Ct.

Handles, Sad Iron—

Enterprise Mfg. Co., Philadelphia, Pa.
E. B. Estes & Sons, 45-47 John St., N. Y.
Fanner Mfg. Co., Cleveland, O.
Pleuger & Henger Mfg. Co., St. Louis, Mo.

Handles, Screw Driver—

Baker, McMillen Co., Akron, O.
Chapin-Stephens Co., Pine Meadow, Ct.
E. B. Estes & Sons, 45-47 John St., N. Y.
Handy Things Co., Ludington, Mich.
W. R. Hartigan, Collinsville, Ct.

Rice Mfg. Co., New Durham, N. H.

Handles, Shaving Brush—

Handy Things Co., Ludington, Mich.

Handles, Soldering Copper—

Baker, McMillen Co., Akron, O.
E. B. Estes & Sons, 45-47 John St., New York.

Handy Things Co., Ludington, Mich.

Handles, Steam Valve—

(See Wheels, Steam Valve.)

Handles, Steering Wheel—

E. B. Estes & Sons, 45-47 John St., New York.

Handles, Tack Puller—

W. R. Hartigan, Collinsville, Ct.

Rice Mfg. Co., New Durham, N. H.

Handles, Tea and Coffee Pot—

Baker, McMillen Co., Akron, O.

Rice Mfg. Co., New Durham, N. H.

Handles, Tracer—

Handy Things Co., Ludington, Mich.

Handles, Trowel—

E. B. Estes & Sons, 45-47 John St., New York.

Handles, Tub—

Reading Hardware Co., Reading, Pa.

Kramer & Erwin Mfg. Co., 24 Chambers St., New York.

Maxey Works, New Britain, Ct.

Handles, Wall Scraper—
E. B. Fols & Sons, 54 John St., New York.

Handles, Water Closet Pull—
E. B. Fols & Sons, 54 John St., New York.

Handy Things Co., Livingston, Mich.

Handles, Whisk Broom—

Baker, McMillen Co., Akron, O.

Rio Mfg. Co., New Durham, N. H.

Handles, Wire, Basket—

Hopewell Wire Co., Worcester, Mass.

Handles, Wrench—

(See Handles, Knife, Wrench.)

Handy Tongue—

(See Cleaners, Lamp Chimney.)

Hanger Screws—

(See Screws, Hanger.)

Hangers, Accordion or

Folding Door—

McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

Richards Mfg. Co., Aurora, Ill.

Hangers and Rails, Sus-

pended—

(See Rails and Hangers, Suspended.)

Hangers and Stirrups, Joist

and Timber—

Belmont Iron Works, Inc., Philadelphia.

Bethlehem Foundry & Machine Co.,

South Bethlehem, Pa.

Chesapeake Iron Works, Baltimore, Md.

W. J. Clark Co., Salem, O.

Cleveland Wire Spring Co., Cleveland, O.

Columbian Hardware Co., Cleveland, O.

Lane Bros. Co., Poughkeepsie, N. Y.

M. Lutz & Sons, Pittsburgh, Pa.

National Iron & Wire Co., Cleveland, O.

Steward & Romaine Mfg. Co., Philadel-

phia, Pa.

Van Horn Iron Works Co., Cleveland, O.

Hangers, Auditorium Door—

(See Hangers, Accordion.)

Hangers, Barn Door—

Allith Mfg. Co., 122-124 S. Green St.,

Chicago, Ill.

Chicago Spring Butt Co., Chicago, Ill.

Crank & Carrier Mfg. Co., Elmira, N. Y.

Davis Mfg. Co., Milwaukee, Wis.

Griffin Mfg. Co., Erie, Pa.

Lane Bros. Co., Poughkeepsie, N. Y.

Lawrence Bros., Sterling, Ill.

Louden Machinery Co., Fairfield, Ia.

McCabe Hanger Mfg. Co., 425-427 W. 25th

St., New York.

McKinney Mfg. Co., Allegheny, Pa.

E. E. Myers & Bro., Ashland, O.

National Mfg. Co., Sterling, Ill.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Peck, Storr & Wilcox Co., 27 Murray St.,

New York.

Pleuger & Henger Mfg. Co., St. Louis.

Reading Hardware Co., Reading, Pa.

Richards Mfg. Co., Aurora, Ill.

Russell & Erwin Mfg. Co., 43-47 Chambers

St., New York.

Taylor & Boggs Foundry Co., Cleveland.

Wrightsville Hardware Co., Wrightsville,

Pa.

Hangers, Barn Door,

Hinged—

Allith Mfg. Co., 122-124 S. Green St., Chi-

cago, Ill.

Crank & Carrier Mfg. Co., Elmira, N. Y.

Davis Mfg. Co., Milwaukee, Wis.

Griffin Mfg. Co., Erie, Pa.

Lane Bros. Co., Poughkeepsie, N. Y.

Lawrence Bros., Sterling, Ill.

Louden Machinery Co., Fairfield, Ia.

McKinney Mfg. Co., Allegheny, Pa.

E. E. Myers & Bro., Ashland, O.

National Mfg. Co., Sterling, Ill.

Ney Mfg. Co., Canton, O.

J. E. Porter Co., Ottawa, Ill.

Richards Mfg. Co., Aurora, Ill.

Hangers, Boiler—

Joseph T. Ryerson & Son, 18-22 Mil-

waukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and

Wayman Sts., Chicago, Ill.

Hangers, Car Door—

Chisholm & Moore Mfg. Co., Cleve-

land, O.

McCabe Hanger Mfg. Co., 425-427 W. 25th

St., New York.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis.

Russell & Erwin Mfg. Co., 43-47 Chambers

St., New York.

Hangers, Countershaft—

Standard Pressed Steel Co., 20th & Clear-

field Sts., Philadelphia, Pa.

Hangers, Cup and Saucer,

Plate, &c.—

Wire Goods Co., Worcester, Mass.

Hangers, Cycle—

(See Stands and Holders, Bicycle.)

Hangers, Dumb Bell and

Indian Club—

A. C. Williams, Ravenna, O.

Hangers, Eave Trough—

Berger Bros. Co., 231-237 Arch St., Phil-

adelphia, Pa.

Berger Mfg. Co., Canton, O.

Edwards Mfg. Co., Cincinnati, O.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.

Reeves Mfg. Co., Canal Dover, O.

Hangers, Elevator Door—

Chisholm & Moore Mfg. Co., Cleve-

land, O.

Lane Bros. Co., Poughkeepsie, N. Y.

McCabe Hanger Mfg. Co., 425-427 W. 25th

St., New York.

McKinney Mfg. Co., Allegheny, Pa.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Reading Hardware Co., Reading, Pa.

Richards Mfg. Co., Aurora, Ill.

Russell & Erwin Mfg. Co., 43-47 Chambers

St., New York.

Hangers, Fire Door—

Allith Mfg. Co., 122 S. Green St., Chi-

cago, Ill.

Griffin Mfg. Co., Erie, Pa.

Lane Bros. Co., Poughkeepsie, N. Y.

Lawrence Bros., Sterling, Ill.

Louden Machinery Co., Fairfield, Ia.

McCabe Hanger Mfg. Co., 425-427 W. 25th

St., New York.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis.

Richards Mfg. Co., Aurora, Ill.

Hangers, Garment and

Trousers—

Bridgeport Hardware Mfg. Co., Bridge-

port, Ct.

Caldwell Mfg. Co., Rochester, N. Y.

Edward Dwyer & Sons, 23-25 Arch St.,

Philadelphia, Pa.

E. B. Estes & Sons, 45-47 John St., New York.

Kilbourne Mfg. Co., Troy, N. Y.
Parker Wire Goods Co., Worcester, Mass.
Fritchard-Strong Co., Rochester, N. Y.
Pullman Mfg. Co., Rochester, N. Y.
Taplin Mfg. Co., New Britain, Ct.
Wire Goods Co., Worcester, Mass.

Hangers, Gate—

Griffin Mfg. Co., Erie, Pa.
M. Lanz & Sons, Pittsburgh, Pa.
Lawrence Bros., Sterling, Ill.
F. E. Myers & Bro., Ashland, O.

Hangers, House Door—

Allith Mfg. Co., 122-124 S. Green St., Chicago, Ill.
Lane Bros. Co., Poughkeepsie, N. Y.
Lawrence Bros., Sterling, Ill.
Louden Machinery Co., Fairfield, Ia.
McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.
McKinney Mfg. Co., Allegheny, Pa.
National Mfg. Co., Sterling, Ill.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
Richards Mfg. Co., Aurora, Ill.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Hangers, Paint Pot—

Eyellet Tool Co., Boston, Mass.

Hangers, Pipe—

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
Fairbanks Co., 416 Broome St., New York.
Jenkins Bros., 71 John St., New York.
McNab & Harlin Mfg. Co., 56 John St., New York.

H. Mueller Mfg. Co., Decatur, Ill.
Pleuger & Henger Mfg. Co., St. Louis, Mo.

Hangers, Post—

C. O. Bartlett & Snow Co., Cleveland, O.
Buhl Malleable Co., Detroit, Mich.
H. W. Caldwell & Son Co., Western Ave., 17th and 18th Sts., Chicago, Ill.
Case Mfg. Co., Columbus, O.
Columbia Bridge Co., Pittsburgh, Pa.
Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.
Fairbanks Co., 416 Broome St., New York.
Falls Rivet & Machine Co., Cuyahoga Falls, O.

Jones & Laughlin Steel Co., Pittsburgh.
Poole Engineering & Machine Co., Baltimore, Md.

Standard Pressed Steel Co., 20th and Clearfield Sts., Philadelphia, Pa.

Hangers, Pressed Steel

Shaft—

Standard Pressed Steel Co., 20th and Clearfield Sts., Philadelphia, Pa.

Hangers, Shaft—

American Tool & Machine Co., Boston.
Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Boston Gear Works, Boston, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.

Browning Engineering Co., Cleveland, O.
Buhl Malleable Co., Detroit, Mich.

H. W. Caldwell & Son Co., Western Ave., 17th St., Chicago, Ill.

W. E. Caldwell Co., Louisville, Ky.
Case Mfg. Co., Columbus, O.

Charter Gas Engine Co., Sterling, Ill.
Columbia Bridge Co., Pittsburgh, Pa.

Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.

W. P. Davis Machine Co., Rochester, N. Y.

C. H. A. Dissinger & Bro., Wrightsville, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Fairbanks Co., 416 Broome St., New York.

Falls Rivet & Machine Co., Cuyahoga Falls, O.

I. & E. Greenwald Co., Cincinnati, O.

Hess-Snyder Co., Massillon, O.

Howard Iron Works, Buffalo, N. Y.

Humphrey Machine Co., Keene, N. H.

Jeffrey Mfg. Co., Columbus, O.

Jones & Laughlin Steel Co., Pittsburgh.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Nassau Machine Works, Brooklyn, N. Y.

Poole Engineering & Machine Co., Baltimore, Md.

Royersford Foundry & Machine Co., Royersford, Pa.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

Standard Car & Foundry Co., Pittsburgh.

Standard Pressed Steel Co., 20th and Clearfield Sts., Philadelphia, Pa.

Warsaw Elevator Co., Warsaw, N. Y.

T. B. Wood's Sons Co., Chambersburg, Pa.

Hangers, Shaft, Structural

Steel—

Nassau Machine Works, Brooklyn, N. Y.

Hangers, Trolley Wire—
(See Trolley Materials, Electric.)

Hangers, Warehouse Door—

Chisholm & Moore Mfg. Co., Cleveland.

Griffin Mfg. Co., Erie, Pa.

McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Richards Mfg. Co., Aurora, Ill.

Hangers, Window Screen

and Sterm Sash—

Phenix Mfg. Co., Milwaukee, Wis.

Stanley Works, New Britain, Ct.

Hardeners, Felt—

Farrel Foundry & Machine Co., Ansonia, Ct.

Hardies, Anvil—

Heller Bros. Co., Newark, N. J.

Vaughan & Bushnell Mfg. Co., Chicago.

Hardware, Carriage and

Wagon—

(See Carriage and Wagon Hardware.)

Hardware Commission Merchants—

(See Agents.)

Hardware Jobbers—

(See Jobbers, Hardware, Cutlery, &c.)

Hardware, Marine—

(See Marine Hardware.)

Hardware Shelf Boxes—

(See Boxes, Shelf.)

Hardware Store Shelving—

(See Shelving.)

Hardware, Trunk and Bag—

(See Corners, Clamps, Locks, Frames, Handles, &c.)

Harness Chains, Hooks, &c.—

(See Chains, Hooks, &c.)

Harness Hardware—

Enterprise Mfg. Co., Akron, O.

Harpoons—

W. & J. Tiebout, 118 Chambers St., N. Y.

Harrow Teeth—

(See Teeth.)

Harrows—

Bateman Mfg. Co., Grenloch, N. J.
 Cutaway Harrow Co., Hixmanum, Ct.
 W. C. Heller & Co., Montpelier, O.
 Long & Alletter Co., Hamilton, O.
 Syracuse Chilled Plow Co., Syracuse, N. Y.
 J. Thompson & Sons Mfg. Co., Beloit, Wis.

R. W. Whitehurst & Co., Norfolk, Va.

Hasp Hooks—

Woodhouse Hardware Mfg. Co., St. Louis, Mo.

Hasp, Latch and Staple—
 Cronk & Carrier Mfg. Co., Elmira, N. Y.

Hasps and Staples—
 (See Wrought Iron Goods.)

Hasps, Hinge—

Griffin Mfg. Co., Erie, Pa.
 M. Lanz & Sons, Pittsburgh, Pa.
 Lawrence Bros., Sterling, Ill.
 McKinney Mfg. Co., Allegheny, Pa.
 National Mfg. Co., Sterling, Ill.
 Reading Hardware Co., Reading, Pa.
 Stanley Works, New Britain, Ct.

Hasps, Store and Ware-

house Door—
 Vaughan & Bushnell Mfg. Co., Chicago.

Hat Badges—

(See Badges and Medals.)

Hat Machinery, Fur—

New Machine Co., Danbury, Ct.

Hatch Doors—

(See Doors, Automatic Hatch.)

Hatchets, Combination—

Kilborn & Bishop Co., New Haven, Ct.

Hatchets, Ice—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pritchard-Strong Co., Rochester, N. Y.
 A. C. Williams, Ravenna, O.

Hatchets, Rafting—

Columbia Grey Iron Co., Columbia Pa.

Hatchets, Shingling, Half,**&c.—**

Columbia Grey Iron Casting Co., Columbia, Pa.

Gray Iron Foundry Co., Reading, Pa.
 National Cutlery Co., Detroit, Mich.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Potter Mfg. Co., Geneva, O.

Smith & Hemenway Co., 108-110 Duane St., New York.

Susquehanna Casting Co., Wrightsville, Pa.

L. & I. J. White Co., Buffalo, N. Y.
 Wiebusch & Hilger, 9-15 Murray St., N. Y.

A. C. Williams, Ravenna, O.
 Wrightsville Hardware Co., Wrightsville, Pa.

Haulage Plants—

Broderick & Bascom Rope Co., St. Louis.
 Browning Engineering Co., Cleveland, O.

Thos. Carlin's Sons, Allegheny, Pa.
 A. Leschen & Sons Rope Co., St. Louis.

Trenton Iron Co., Trenton, N. J.
 Wellman-Seaver-Morgan Co., Cleveland, O.

Haulage, Wire Rope Under-**ground—**

Broderick & Bascom Rope Co., St. Louis.
 A. Leschen & Sons Rope Co., St. Louis.

Wellman-Seaver-Morgan Co., Cleveland, O.

Hauls, Log—

(See Log Hauls.)

Hauls, Mine Car—

Interstate Engineering Co., Bedford, O.

Hawks and Darbies, Alumi-**num—**

Marshalltown Trowel Co., Marshalltown, Ia.

Hawyers, Wire—

National Wire Corporation, New Haven, Ct.

Hay Fork Carriers, Pul-**leys—**

(See Haying Tools, Pullers.)

Hay Forks—

(See Forks, Hay, Manure, Spading, &c.)

Hay Knives, Rope—

(See Knives, Rope.)

Hay Racks—

(See Stable Fixtures.)

Haying Tools (Forks,**Slings and Carriers)—**

Louden Machinery Co., Fairfield, Ia.
 F. E. Myers & Bro., Ashland, O.
 Ney Mfg. Co., Canton, O.
 J. E. Porter Co., Ottawa, Ill.

Rock River Machine Co., Janesville, Wis.
 Syracuse Chilled Plow Co., Syracuse, N. Y.

Warsaw Elevator Co., Warsaw, N. Y.
 Whitman & Barnes Mfg. Co., Chicago.

Header and Bender, Bicycle**Spoke—**

(See Spoke Header and Bender, Bicycle.)

Headers, Barrel—

Warsaw Elevator Co., Warsaw, N. Y.

Headers, Bolt—

Acme Machinery Co., Cleveland, O.
 Ajax Mfg. Co., Cleveland, O.

Baird Machinery Co., Pittsburgh, Pa.
 Blake & Johnson, Waterbury, Ct.

Boydton & Plummer, Worcester, Mass.
 Asa S. Cook Co., Hartford, Ct.

E. J. Manville Machine Co., Waterbury, Ct.
 National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Wells Bros. Co., Greenfield, Mass.

Headers, Rivet—

Acme Machinery Co., Cleveland, O.
 Ajax Mfg. Co., Cleveland, O.

Blake & Johnson, Waterbury, Ct.
 Asa S. Cook, Hartford, Ct.

E. J. Manville Machine Co., Waterbury, Ct.
 National Machinery Co., Tiffin, O.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Headers, Rod—

Blake & Johnson, Waterbury, Ct.
 National Machinery Co., Tiffin, O.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Headers, Screw Blank—

E. J. Manville Machine Co., Waterbury, Ct.

Headers, Wood Screw—

Asa S. Cook Co., Hartford, Ct.

Heading and Shingle Ma-**chines—**

Peter Gerlach Co., Cleveland, O.
 Lane Mfg. Co., Montpelier, Vt.

Novelty Iron Works, Dubuque, Ia.

Headless Bolts—

(See Bolts, Special.)

Heads, Brace—

(See Handles and Heads, Braces.)

Heads, Conductor—

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Heads, Duster—
(See Handles and Heads.)

Heads, Exhaust—

American Spiral Pipe Works, 1173-1201 S.

Paulina St., Chicago, Ill.

Burt Mfg. Co., Akron, O.

Exeter Machine Works, Exeter, N. H.

Greenaway Co., Detroit, Mich.

Benj. F. Kelley & Son, 91 Liberty St., New York.

Frank L. Patterson & Co., 26 Cortlandt St., New York.

Pittsburgh Valve Foundry & Construction Co., Pittsburgh, Pa.

Stirling Blower & Pipe Mfg. Co., Hartford, Ct.

B. P. Sturtevant Co., Boston, Mass.

Whitlock Coil Pipe Co., Hartford, Ct.

Heads, Flanged and Dished Boiler—

Avery Stamping Co., Cleveland, O.

E. Keeler Co., Williamsport, Pa.

Lukens Iron & Steel Co., Coatesville, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

Heads, Flanged, Barrel and Keg—

Cleveland Wire Spring Co., Cleveland, O.

Heads, Indexing and Dividing—

Becker-Brannard Milling Machine Co., Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Cincinnati Milling Machine Co., Cincinnati, O.

Garvin Machine Co., Spring and Varick Sts., New York.

Pratt & Whitney Co., Hartford, Ct.

Stockbridge Machine Co., Worcester, Mass.

Vanderbeck Tool Works, Hartford, Ct.

Heads, Kitchen Boiler, &c.—

Avery Stamping Co., Cleveland, O.

Heads, Planer—

Tindell-Morris Co., Eddystone, Pa.

Heads, Polishing—

Chandler & Farquhar Co., Boston, Mass.

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Goodell-Pratt Co., Greenfield, Mass.

Hanson & Van Winkle Co., Newark, N. J.

Zucker & Levett & Loeb Co., 526 W. 25th St., New York.

Heads, Tank—

W. J. Clark Co., Salem, O.

Tudor Boiler Mfg. Co., Cincinnati, O.

Heads, Working Windmill, &c.—

Barnes Mfg. Co., Mansfield, O.

Deming Co., Salem, O.

Weber Gas & Gasoline Engine Co., Kansas City, Mo.

W. & B. Douglas, Middletown, Ct.

Heaters, Air, Electric—

H. W. Johns-Manville Co., 100 William St., New York.

Heaters, Asphalt and Mastic—

F. H. Evans, Brooklyn, N. Y.

Heaters, Barrel—

Warsaw Elevator Co., Warsaw, N. Y.

Heaters, Car—

(See Heaters, Air, Electric.)

Heaters, Carriage—

Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.

Heaters, Feed Water—

Alberger Condenser Co., 95 Liberty St., New York.

American Spiral Pipe Works, 1173-1201 S.

Paulina St., Chicago, Ill.

Exeter Machine Works, Exeter, N. Y.

Green Fuel Economizer Co., Mattesawan, N. Y.

Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.

Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.

Benj. F. Kelley & Son, 91 Liberty St., New York.

John H. McGowan Co., Cincinnati, O.

National Pipe Bending Co., New Haven, Ct.

Frank L. Patterson & Co., 26 Cortlandt St., New York.

Wm. B. Seafie & Sons Co., Pittsburgh, Standard Car & Foundry Co., Pittsburgh, Tudor Boiler Mfg. Co., Cincinnati, O.

Walworth Mfg. Co., Boston, Mass.

Warren Webster & Co., Camden, N. J.

Robt. Wetherill & Co., Chester, Pa.

Whitlock Coil Pipe Co., Hartford, Ct.

Wickes Bros., Saginaw, Mich.

MERCHANTS.

Charles Behler, 72 Trinity Pl., New York.

Chicago Edison Co., Chicago, Ill.

Columbus Equipment Co., Columbus, O.

Fairbanks Co., 416 Broome St., New York.

I. & E. Greenwald Co., Cincinnati, O.

Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.

A. V. Kaiser & Co., 222 S. Third St., Philadelphia, Pa.

McDowell & Co., Allegheny, Pa.

Geo. A. McLean & Co., Pittsburgh, Pa.

A. E. Rosenthal, Davenport, Ia.

Frank Toomey, 127-131 No. Third St., Philadelphia, Pa.

C. G. Wormer Machinery Co., Detroit, Mich.

Heaters, Feed Water, Instantaneous—

Adam's Steel & Wire Works, Joliet, Ill.

Heaters, Gas, Gasoline and Oil—

Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.

Fanner Mfg. Co., Cleveland, O.

Glazier Stove Co., Chelsea, Mich.

Hollands Mfg. Co., Erie, Pa.

Charles Mundt & Sons, 441-447 Pearl St., New York.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

Heaters, Gas, Water—

Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.

Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

Heaters, Glue—

Hobbs Mfg. Co., Worcester, Mass.

Heaters, Gravel—

F. H. Evans, Brooklyn, N. Y.

Heaters, House—

(See Furnaces; also Boilers.)

Heaters, Kitchen, Boiler—

Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

Heaters, Lamp Chimney—

W. B. Hartigan, Collinsville, Ct.

Heaters, Lamp Chimney,**Wire—**

(See Household Articles, Wire.)

Heaters, Sad Iron—

Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.
Enterprise Mfg. Co., Philadelphia, Pa.
Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.
A. C. Williams, Ravenna, O.

Heaters, Tailor, Iron, Gas—

Dangler Stove Co., Div. Am. Stove Co., Cleveland, O.

Heaters, Tar—

F. H. Evans, Brooklyn, N. Y.

Heating and Ventilating**Apparatus—**

American Blower Co., Detroit, Mich.
Boston Blower Co., Hyde Park, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Exeter Machine Works, Exeter, N. H.
Green Fuel Economizer Co., Matteawan, N. Y.
Howard & Morse, 45 Fulton St., N. Y.
John H. McGowan Co., Cincinnati, O.
E. J. Ryan, Danville, Ill.
R. F. Sturtevant Co., Boston, Mass.
C. E. Sutton Co., Toledo, O.
Walworth Mfg. Co., Boston, Mass.
Warren Webster & Co., Camden, N. J.

MERCHANTS.

Power Specialty Co., 111 Broadway, New York

Wickes Bros., Saginaw, Mich.

Heating, Greenhouse—

Lord & Burnham Co., Irvington-on-Hudson, N. Y.

Hedge Shear Handles—

(See Handles, Grass Hook, &c.)

Heel Chains, Plates, Stiffeners—

(See Chains, Plates, Stiffeners.)

Heels, Shoe—

(See Lifts, Shoe.)

Heels, Shoe, Rubber—

Springfield Tire & Rubber Co., Springfield, O.

Hide Rope—

(See Rope, Hide.)

Hinge Hasps, Nails, Plates—

(See Hasps, Nails, Plates.)

Hinge Machinery, Auto-**matic—**

Baird Machine Co., Oakville, Ct.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Hinges and Hasps, Box,**Crate, &c.—**

Cary Mfg. Co., 19-21 Roosevelt St., N. Y.
Griffin Mfg. Co., Erie, Pa.
McKinney Mfg. Co., Allegheny, Pa.
Stanley Works, New Britain, Ct.

Hinges, Automobile, Car-**riage—**

Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

Hinges, Bag, Case and**Trunk—**

R. C. Jenkinson & Co., Newark, N. J.

J. H. Sessions & Son, Bristol, Ct.

Hinges, Blind—

Charles Parker Co., Meriden, Ct.
Parker Wire Goods Co., Worcester, Mass.
Pleuger & Henger Mfg. Co., St. Louis, Mo.
Reading Hardware Co., Reading, Pa.
Stanley Works, New Britain, Ct.

Susquehanna Casting Co., Wrightsville,

Pa.

Wire Goods Co., Worcester, Mass.

Wrightsville Hardware Co., Wrightsville,

Pa.

Hinges, Blind, Awning—

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Hinges, Brass—

Arcade Mfg. Co., Freeport, Ill.

Columbian Hardware Co., Cleveland, O.

Stanley Works, New Britain, Ct.

Hinges, Brass, Bronze, &c.—

(See Butts and Hinges, Brass, Bronze,

&c.)

Hinges, Cabinet—

(See Cabinet Hinges.)

Hinges, Checking Spring—

Joseph Bardsley, 147 Baxter St., N. Y.

Hinges, Fancy Box—

John Hassall, Brooklyn, N. Y.

Hinges, Floor Spring—

Joseph Bardsley, 147 Baxter St., N. Y.

Bommer Bros., Brooklyn, N. Y.

Chicago Spring Butt Co., Chicago, Ill.

Columbian Hardware Co., Cleveland, O.

Lawson Mfg. Co., 40 Dearborn St., Chi-

cago, Ill.

Pullman Mfg. Co., Rochester, N. Y.

Richards Mfg. Co., Aurora, Ill.

Shelby Spring Hinge Co., Shelby, O.

Superior Spring Hinge Co., 15 S. Canal

St., Chicago, Ill.

Hinges, Folding Bed—

American Tube & Stamping Co., Bridge-

port, Ct.

McKinney Mfg. Co., Allegheny, Pa.

Hinges, Foundry Flask—

Susquehanna Castings Co., Wrightsville,

Pa.

Hinges, Friction—

Glen Rock Stamping Co., Glen Rock, Pa.

Hinges, Gate—

Griffin Mfg. Co., Erie, Pa.

M. Lanz & Sons, Pittsburgh, Pa.

Charles Parker Co., Meriden, Ct.

Peck, Stow & Wilcox Co., 21 Murray St.,

New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Susquehanna Casting Co., Wrightsville,

Pa.

Union Mfg. Co., New Britain, Ct.

Wrightsville Hardware Co., Wrightsville,

Pa.

Yale & Towne Mfg. Co., 9-15 Murray St.,

New York.

Hinges, Long Chest—

Griffin Mfg. Co., Erie, Pa.

McKinney Mfg. Co., Allegheny, Pa.

Stanley Works, New Britain, Ct.

Hinges, Malleable Iron—

W. & J. Tiebout, 118 Chambers St., N. Y.

Hinges, Mirror—

Eagle Lock Co., Terryville, Ct.

Hinges, Ornamental—

(See Cabinet Hinges.)

Hinges, Pivot—

Bommer Bros., Brooklyn, N. Y.

Lawson Mfg. Co., 40 Dearborn St., Chi-

cago, Ill.

Hinges, Plate—

Griffin Mfg. Co., Erie, Pa.

Peck, Stow & Wilcox Co., 21 Murray St.,

New York.

Stanley Works, New Britain, Ct.

- Hinges, Refrigerator—**
Arcade Mfg. Co., Freeport, Ill.
Reading Hardware Co., Reading, Pa.
Riverside Metal Co., Riverside, N. J.
Stanley Works, New Britain, Ct.
W. & J. Tiebout, 118 Chambers St., N. Y.
- Hinges, Screw Hook or Strap and Eye—**
M. Lanz & Sons, Pittsburgh, Pa.
Lawrence Bros., Sterling, Ill.
McKinney Mfg. Co., Allegheny, Pa.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Hinges, Shutter—**
Columbia Grey Iron Co., Columbia, Pa.
Gray Iron Foundry Co., Reading, Pa.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Stanley Works, New Britain, Ct.
Susquehanna Casting Co., Wrightsville, Pa.
Wrightsville Hardware Co., Wrightsville, Pa.
- Hinges, Spring—**
Arcade Mfg. Co., Freeport, Ill.
Bommer Bros., Brooklyn, N. Y.
Chicago Spring Butt Co., Chicago, Ill.
Cleveland Lock Co., Cleveland, O.
Columbian Hardware Co., Cleveland, O.
Fenner Mfg. Co., Cleveland, O.
Lawson Mfg. Co., 40 Dearborn St., Chicago, Ill.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Pleunger & Henger Mfg. Co., St. Louis, Mo.
Reading Hardware Co., Reading, Pa.
Scovill Mfg. Co., Waterbury, Ct.
Shelby Spring Hinge Co., Shelby, O.
Susquehanna Casting Co., Wrightsville, Pa.
Union Mfg. Co., New Britain, Ct.
- Hinges, Spring, Loose Joint—**
Cleveland Lock Co., Cleveland, O.
- Hinges, Spring, Water Closet Door—**
Bommer Bros., Brooklyn, N. Y.
Chicago Spring Butt Co., Chicago, Ill.
Columbian Hardware Co., Cleveland, O.
Reading Hardware Co., Reading, Pa.
- Hinges, Strap and T. &c.—**
Cleveland Lock Co., Cleveland, O.
Griffin Mfg. Co., Erie, Pa.
F. E. Kohler & Co., Canton, O.
Lawrence Bros., Sterling, Ill.
McKinney Mfg. Co., Allegheny, Pa.
National Mfg. Co., Sterling, Ill.
Stanley Works, New Britain, Ct.
- Hinges, Strap and T. Corrugated—**
Stanley Works, New Britain, Ct.
- Hinges, Tail Board—**
Griffin Mfg. Co., Erie, Pa.
- Hinges, Trap Door—**
Stanley Works, New Britain, Ct.
- Hinges, Trunk—**
R. C. Jenkinson & Co., Newark, N. J.
McKinney Mfg. Co., Allegheny, Pa.
National Mfg. Co., Sterling, Ill.
J. H. Sessions & Son, Bristol, Ct.
Stanley Works, New Britain, Ct.
- Hinges, Wagon, End Gate—**
Griffin Mfg. Co., Erie, Pa.
Lawrence Bros., Sterling, Ill.
McKinney Mfg. Co., Allegheny, Pa.
National Mfg. Co., Sterling, Ill.
- Hinges, Wash Tray—**
Stanley Works, New Britain, Ct.
- Hinges, Water Closet Seat—**
Griffin Mfg. Co., Erie, Pa.
Reading Hardware Co., Reading, Pa.
Stanley Works, New Britain, Ct.
- Hinges, Wire, Box—**
F. P. Smith & Co., Sharon Hill, Pa.
- Hinges, Wrought, to Order—**
Griffin Mfg. Co., Erie, Pa.
Hay-Budden Mfg. Co., Brooklyn, N. Y.
National Mfg. Co., Sterling, Ill.
- Hitches, Rope—**
F. E. Myers & Bro., Ashland, O.
Ney Mfg. Co., Canton, O.
- Hitching Posts, Rings, Ropes, Weights—**
(See Posts, Rings, Ropes, Weights.)
- Hitching Post Rods—**
Covert Mfg. Co., Troy, N. Y.
- Hitching Strap Adjusters—**
(See Adjusters, Hammock Rope and Hitching Strap.)
- Hobbing Machines, Worm Wheel—**
Gould & Eberhardt, Newark, N. J.
- Hobble Chains—**
(See Chains, Hobbles.)
- Hobs, Worm—**
Brown & Sharpe Mfg. Co., Providence, R. I.
- Union Twist Drill Co., Athol, Mass.**
- Hockey Sticks—**
(See Sticks, Polo and Hockey.)
- Hods, Coal—**
S. M. Howes Co., Boston, Mass.
Murdoch-Shaw Co., Boston, Mass.
Republic Metalware Co., Buffalo, N. Y.
Sturges & Burn Mfg. Co., Chicago, Ill.
- Hods, Mortar Brick, &c.—**
Cleveland Wire Spring Co., Cleveland, O.
- Hoe Brackets—**
(See Brackets, Hoe.)
- Hoe Machinery—**
(See Fork, Rake and Hoe Machinery.)
- Hoes, Beet, Berry, &c.—**
American Fork & Hoe Co., Cleveland, O.
- Hoes, Eye—**
American Fork & Hoe Co., Cleveland, O.
F. E. Kohler & Co., Canton, O.
Sandusky Tool Co., Sandusky, O.
D. & H. Scovill, Hingham, Ct.
- Hoes, Garden, Field, Mortar, &c.—**
American Fork & Hoe Co., Cleveland, O.
Bateman Mfg. Co., Grenloch, N. J.
Continental Tool Co., Frankfort, N. Y.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Peter Gerlach Co., Cleveland, O.
John H. Graham & Co., 113 Chambers St., New York.
F. E. Kohler & Co., Canton, O.
Potter Mfg. Co., Geneva, O.
Sandusky Tool Co., Sandusky, O.
- Hoes, Grape—**
American Fork & Hoe Co., Cleveland, O.
Sandusky Tool Co., Sandusky, O.
Syracuse Chilled Plow Co., Syracuse, N. Y.
- Hoes, Grubbing—**
American Fork & Hoe Co., Cleveland, O.
Bateman Mfg. Co., Grenloch, N. J.
Hubbard & Co., Pittsburgh, Pa.
Sandusky Tool Co., Sandusky, O.
- Hoes, Horse—**
Bateman Mfg. Co., Grenloch, N. J.
Cutaway Harrow Co., Hingham, Ct.
Syracuse Chilled Plow Co., Syracuse, N. Y.
- Hoes, Scuffle—**
American Fork & Hoe Co., Cleveland, O.
Potter Mfg. Co., Geneva, O.

- Hoes, Self-Cleaning**—
Rock River Mfg. Co., Dixon, Ill.
- Hoes, Street**—
American Fork & Hoe Co., Cleveland, O.
Sandusky Tool Co., Sandusky, O.
- Hoes, Weeding**—
Cronk & Carrier Mfg. Co., Elmira, N. Y.
F. E. Kohler & Co., Canton, O.
- Hoes, Wheel**—
Bateman Mfg. Co., Grenloch, N. J.
- Hog Rings, Ringers**—
(See Rings and Ringers, Hog.)
- Hog Scrapers, Tongs**—
(See Scrapers, Tongs.)
- Hoisting Chain**—
(See Chain, Crane, Cable, &c.)
- Hoisting Engines**—
(See Engines, Hoisting.)
- Hoisting Machines**—
Automatic Machine Co., Bridgeport, Ct.
C. O. Bartlett & Snow Co., Cleveland, O.
Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.
Brown Hoisting Machinery Co., Cleveland, O.
Browning Engineering Co., Cleveland, O.
Thos. Carlin's Sons, Allegheny, Pa.
Chisholm & Moore Mfg. Co., Cleveland, O.
Cleveland Crane & Car Co., Wickliffe, O.
Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.
Eastern Machinery Co., New Haven, Ct.
General Pneumatic Tool Co., Montour Falls, N. Y.
C. W. Hunt Co., West New Brighton, N. Y.
Jeffrey Mfg. Co., Columbus, O.
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
Niles-Bement-Pond Co., 111 Broadway, New York.
Northern Engineering Works, Detroit, Mich.
F. R. Patch Mfg. Co., Rutland, Vt.
Pawling & Harnischfeger, Milwaukee, Wis.
Pittsburgh Industrial Iron Works, Pittsburgh, Pa.
Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
Robins Conveying Belt Co., Park Row Bldg., New York.
Wm. Sellers & Co. (Inc.), Philadelphia.
J. G. Speidel, Reading, Pa.
Warner Elevator Mfg. Co., Cincinnati, O.
Wellman-Seaver-Morgan Co., Cleveland, O.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
- MERCHANTS.**
Baird Machinery Co., Pittsburgh, Pa.
Broderick & Bascom Rope Co., St. Louis.
Fairbanks Co., 416 Broome St., New York.
Hill, Clarke & Co., Boston, Mass.
Irving Mfg. & Tool Co., 157 Chambers St., New York.
A. Leschen & Sons Rope Co., St. Louis.
Lovegrove & Co., 143 N. 3d St., Philadelphia, Pa.
McDowell & Co., Allegheny, Pa.
H. A. Rogers Co., 19 John St., New York.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
Thornton Machinery Co., Providence, R.I.
- Jacob Ullman, Buffalo, N. Y.
Wickes Bros., Saginaw, Mich.
C. C. Wormer Machinery Co., Detroit, Mich.
- Hoists, Ammunition**—
Yale & Towne Mfg. Co., 9-15 Murray St., New York.
- Hoists, Ash**—
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
Browning Engineering Co., Cleveland, O.
Interstate Engineering Co., Bedford, O.
Northern Engineering Works, Detroit, Mich.
- Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
- Hoists, Brick and Mortar**—
Thos. Carlin's Sons, Allegheny, Pa.
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
Northern Engineering Works, Detroit, Mich.
- Hoists, Chain and Rope**—
Boston & Lockport Block Co., Boston.
Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.
Broderick & Bascom Rope Co., St. Louis.
Brown Hoisting Machinery Co., Cleveland.
Browning Engineering Co., Cleveland, O.
Chisholm & Moore Mfg. Co., Cleveland, O.
Cleveland Crane & Car Co., Wickliffe, O.
Chas. G. Eckstein, 249 Centre St., N. Y.
Frevert Machinery Co., 18 Dey St., New York.
General Pneumatic Tool Co., Montour Falls, N. Y.
E. Harrington, Son & Co. (Inc.), Philadelphia, Pa.
Helwig Mfg. Co., St. Paul, Minn.
Interstate Engineering Co., Bedford, O.
Lane Bros. Co., Poughkeepsie, N. Y.
A. Leschen & Sons Rope Co., St. Louis.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
Ney Mfg. Co., Canton, O.
Wm. S. Nicholls, 251 Broadway, N. Y.
Niles-Bement-Pond Co., 111 Broadway, New York.
Northern Engineering Works, Detroit, Mich.
Republic Belting & Supply Co., Cleveland, O.
D. Round & Son, Cleveland, O.
Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
J. G. Speidel, Reading, Pa.
Warsaw Elevator Co., Warsaw, N. Y.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.
- Hoists, Cylinder**—
Browning Engineering Co., Cleveland, O.
- Hoists, Electric**—
Brown Hoisting Machinery Co., Cleveland, O.
Browning Engineering Co., Cleveland, O.
Carlin Machinery & Supply Co., Allegheny, Pa.
Case Mfg. Co., Columbus, O.
Cleveland Crane & Car Co., Wickliffe, O.
Crocker-Wheeler Co., Ampere, N. J.
Fairbanks Co., 416 Broome St., New York.
General Pneumatic Tool Co., Montour Falls, N. Y.
C. W. Hunt Co., West New Brighton, N. Y.
Interstate Engineering Co., Bedford, O.

Lidgerwood Mfg. Co., 96 Liberty St., New York.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Pawling & Harnischfeger, Milwaukee, Wis.

Robins Conveying Belt Co., Park Row Bldg., New York.

Sprague Electric Co., 527 W. 34th St., New York.

B. F. Sturtevant Co., Boston, Mass.

Wellman-Seaver-Morgan Co., Cleveland, Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Hoists, Friction Drum Belt—
Northern Engineering Works, Detroit, Mich.

Hoists, Gas and Gasoline—
Charter Gas Engine Co., Sterling, Ill.
Aug. Metz, 128 Mott St., New York.
Northern Engineering Works, Detroit, Mich.

Hoists, Hand—
Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Boston & Lockport Block Co., Boston.

Browning Engineering Co., Cleveland, O.

Case Mfg. Co., Columbus, O.

Chisholm & Moore Mfg. Co., Cleveland.

Cleveland Crane & Car Co., Wickliffe, O.

Franklin Portable Crane & Hoist Co., Franklin, Pa.

Freyert Machine Co., 18 Dey St., New York.

General Pneumatic Tool Co., Montour Falls, N. Y.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Wm. S. Nicholls, 251 Broadway, New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Pawling & Harnischfeger, Milwaukee, Wis.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

D. Round & Son, Cleveland, O.

J. G. Speidel, Reading, Pa.

Warsaw Elevator Co., Warsaw, N. Y.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Hoists, Hydraulic—
Wm. Sellers & Co. (Inc.), Philadelphia.

Hoists, Ice—
Brown Hoisting Machinery Co., Cleveland, O.

Northern Engineering Works, Detroit, Mich.

Hoists, Mine—
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

Northern Engineering Works, Detroit, Mich.

Wellman-Seaver-Morgan Co., Cleveland, O.

Hoists, Planes—
Sycamore Wagon Works, Sycamore, Ill.

Hoists, Pneumatic—

Brown Hoisting Machinery Co., Cleveland, O.

Browning Engineering Co., Cleveland, O.

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Chisholm & Moore Mfg. Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

Freyert Machinery Co., 18 Dey St., New York.

General Pneumatic Tool Co., Montour Falls, N. Y.

J. Gilmour, Bennett Bldg., New York.

Helwig Mfg. Co., St. Paul, Minn.

Ingersoll-Rand Co., 11 Broadway, New York.

Irving Mfg. & Tool Co., 157 Chambers St., New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Craig Ridgway & Son Co., Coatesville, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

S. Obermayer Co., Cincinnati, O.

Whiting Foundry Equipment Co., Harvey, Ill.

Wickes Bros., Saginaw, Mich.

Hoists, Portable—
Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.

Boston & Lockport Block Co., Boston.

Brown Hoisting Machinery Co., Cleveland, O.

Browning Engineering Co., Cleveland, O.

Thos. Carlin's Sons, Allegheny, Pa.

Chisholm & Moore Mfg. Co., Cleveland, O.

Cleveland Crane & Car Co., Wickliffe, O.

Franklin Portable Crane & Hoist Co., Franklin, Pa.

General Pneumatic Tool Co., Montour Falls, N. Y.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Wm. S. Nicholls, 251 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Craig Ridgway & Son Co., Coatesville, Pa.

D. Round & Son, Cleveland, O.

J. G. Speidel, Reading, Pa.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Hoists, Riveter—
Cleveland Crane & Car Co., Wickliffe, O.

Fairbanks Co., 416 Broome St., New York.

Northern Engineering Works, Detroit, Mich.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Wm. Sellers & Co. (Inc.), Philadelphia.

Sidney Elevator Mfg. Co., Sidney, O.

Hoes, Self-Cleaning—

Rock River Mfg. Co., Dixon, Ill.

Hoes, Street—American Fork & Hoe Co., Cleveland, O.
Sandusky Tool Co., Sandusky, O.**Hoes, Weeding—**Cronk & Carrier Mfg. Co., Elmira, N. Y.
F. E. Kohler & Co., Canton, O.**Hoes, Wheel—**

Batemann Mfg. Co., Granloch, N. J.

Hog Rings, Ringers—

(See Rings and Ringers, Hog.)

Hog Scrapers, Tongs—

(See Scrapers, Tongs.)

Hoisting Chain—

(See Chain, Crane, Cable, &c.)

Hoisting Engines—

(See Engines, Hoisting.)

Hoisting Machines—Automatic Machine Co., Bridgeport, Ct.
C. O. Bartlett & Snow Co., Cleveland, O.
Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.

Brown Hoisting Machinery Co., Cleveland, O.

Browning Engineering Co., Cleveland, O.
Thos. Carlin's Sons, Allegheny, Pa.Chisholm & Moore Mfg. Co., Cleveland, O.
Cleveland Crane & Car Co., Wickliffe, O.

Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.

Eastern Machinery Co., New Haven, Ct.
General Pneumatic Tool Co., Montour Falls, N. Y.

C. W. Hunt Co., West New Brighton, N. Y.

Jeffrey Mfg. Co., Columbus, O.
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

F. R. Patch Mfg. Co., Rutland, Vt.
Pawling & Harnischfeger, Milwaukee, Wis.

Pittsburgh Industrial Iron Works, Pittsburgh, Pa.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Robins Conveying Belt Co., Park Row Bldg., New York.

Wm. Sellers & Co. (Inc.), Philadelphia.

J. G. Speidel, Reading, Pa.

Warner Elevator Mfg. Co., Cincinnati, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

R. D. Wood & Co., 408 Chestnut St., Philadelphia, Pa.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.

Broderick & Bascom Rope Co., St. Louis.

Fairbanks Co., 416 Broome St., New York.

Hill, Clarke & Co., Boston, Mass.

Irving Mfg. & Tool Co., 157 Chambers St., New York.

A. Leschen & Sons Rope Co., St. Louis.

Lovegrove & Co., 145 N. 3d St., Philadelphia, Pa.

McDowell & Co., Allegheny, Pa.

H. A. Rogers Co., 19 John St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Thornton Machinery Co., Providence, R.I.

Jacob Ullman, Buffalo, N. Y.

Wickes Bros., Saginaw, Mich.

C. C. Wormer Machinery Co., Detroit, Mich.

Hoists, Ammunition—

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Hoists, Ash—

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Browning Engineering Co., Cleveland, O.

Interstate Engineering Co., Bedford, O.

Northern Engineering Works, Detroit, Mich.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Hoists, Brick and Mortar—

Thos. Carlin's Sons, Allegheny, Pa.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

Northern Engineering Works, Detroit, Mich.

Hoists, Chain and Rope—

Boston & Lockport Block Co., Boston.

Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.

Broderick & Bascom Rope Co., St. Louis.

Brown Hoisting Machinery Co., Cleveland.

Browning Engineering Co., Cleveland, O.

Chisholm & Moore Mfg. Co., Cleveland, O.

Cleveland Crane & Car Co., Wickliffe, O.

Chas. G. Eckstein, 219 Centre St., N. Y.

Freyer Machinery Co., 18 Dey St., New York.

General Pneumatic Tool Co., Montour Falls, N. Y.

E. Harrington, Son & Co. (Inc.), Philadelphia, Pa.

Helwig Mfg. Co., St. Paul, Minn.

Interstate Engineering Co., Bedford, O.

Lane Bros. Co., Poughkeepsie, N. Y.

A. Leschen & Sons Rope Co., St. Louis.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

New Mfg. Co., Canton, O.

Wm. S. Nicholls, 251 Broadway, N. Y.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Republie Belting & Supply Co., Cleveland, O.

D. Round & Son, Cleveland, O.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

J. G. Speidel, Reading, Pa.

Warsaw Elevator Co., Warsaw, N. Y.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Hoists, Cylinder—

Browning Engineering Co., Cleveland, O.

Hoists, Electric—

Brown Hoisting Machinery Co., Cleveland, O.

Browning Engineering Co., Cleveland, O.

Carlin Machinery & Supply Co., Allegheny, Pa.

Case Mfg. Co., Columbus, O.

Cleveland Crane & Car Co., Wickliffe, O.

Crocker-Wheeler Co., Ampere, N. J.

Fairbanks Co., 416 Broome St., New York.

General Pneumatic Tool Co., Montour Falls, N. Y.

C. W. Hunt Co., West New Brighton, N. Y.

Interstate Engineering Co., Bedford, O.

Lidgerwood Mfg. Co., 96 Liberty St., New York.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Pawling & Harnischfeger, Milwaukee, Wis.

Robins Conveying Belt Co., Park Row Bldg., New York.

Sprague Electric Co., 527 W. 34th St., New York.

B. F. Sturtevant Co., Boston, Mass.

Wellman-Seaver-Morgan Co., Cleveland, Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Hoists, Friction Drum Belt—
Northern Engineering Works, Detroit, Mich.

Hoists, Gas and Gasoline—
Charter Gas Engine Co., Sterling, Ill.

Aug. Mietz, 128 Mott St., New York.

Northern Engineering Works, Detroit, Mich.

Hoists, Hand—
Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Boston & Lockport Block Co., Boston.

Browning Engineering Co., Cleveland, O.

Case Mfg. Co., Columbus, O.

Chisholm & Moore Mfg. Co., Cleveland.

Cleveland Crane & Car Co., Wickliffe, O.

Franklin Portable Crane & Hoist Co., Franklin, Pa.

Frevert Machine Co., 18 Dey St., New York.

General Pneumatic Tool Co., Montour Falls, N. Y.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Wm. S. Nicholls, 251 Broadway, New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Pawling & Harnischfeger, Milwaukee, Wis.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

D. Round & Son, Cleveland, O.

J. G. Speidel, Reading, Pa.

Warsaw Elevator Co., Warsaw, N. Y.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Hoists, Hydraulic—
Wm. Sellers & Co. (Inc.), Philadelphia.

Hoists, Ice—
Brown Hoisting Machinery Co., Cleveland, O.

Northern Engineering Works, Detroit, Mich.

Hoists, Mine—
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

Northern Engineering Works, Detroit, Mich.

Wellman-Seaver-Morgan Co., Cleveland, O.

Hoists, Horse—
Sycamore Wagon Works, Sycamore, Ill.

Hoists, Pneumatic—
Brown Hoisting Machinery Co., Cleveland, O.

Browning Engineering Co., Cleveland, O.

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Chisholm & Moore Mfg. Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

Frevert Machinery Co., 18 Dey St., New York.

General Pneumatic Tool Co., Montour Falls, N. Y.

J. Gilmour, Bennett Bldg., New York.

Helwig Mfg. Co., St. Paul, Minn.

Ingersoll-Rand Co., 11 Broadway, New York.

Irring Mfg. & Tool Co., 157 Chambers St., New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Craig Ridgway & Son Co., Coatesville, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

S. Obermayer Co., Cincinnati, O.

Whiting Foundry Equipment Co., Harvey, Ill.

Wickes Bros., Saginaw, Mich.

Hoists, Portable—
Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.

Boston & Lockport Block Co., Boston.

Brown Hoisting Machinery Co., Cleveland, O.

Browning Engineering Co., Cleveland, O.

Thos. Carlin's Sons, Allegheny, Pa.

Chisholm & Moore Mfg. Co., Cleveland, O.

Cleveland Crane & Car Co., Wickliffe, O.

Franklin Portable Crane & Hoist Co., Franklin, Pa.

General Pneumatic Tool Co., Montour Falls, N. Y.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Wm. S. Nicholls, 251 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Craig Ridgway & Son Co., Coatesville, Pa.

D. Round & Son, Cleveland, O.

J. G. Speidel, Reading, Pa.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Hoists, Riveter—
Cleveland Crane & Car Co., Wickliffe, O.

Fairbanks Co., 416 Broome St., New York.

Northern Engineering Works, Detroit, Mich.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Wm. Sellers & Co. (Inc.), Philadelphia.

Sidney Elevator Mfg. Co., Sidney, O.

Holists, Screw and Spur—

Chisholm & Moore Mfg. Co., Cleveland, O.
D. Round & Son, Cleveland, O.
Yale & Towne Mfg. Co., 9-15 Murray St., New York

Holists, Sidewalk—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Brown Hoisting Machinery Co., Cleveland, O.
Energy Elevator Co., 411 Cherry St., Philadelphia, Pa.

Howard Iron Works, Buffalo, N. Y.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York

Sidney Elevator Mfg. Co., Sidney, O.
J. G. Speidel, Reading, Pa.
Storm Mfg. Co., Newark, N. J.
Warner Elevator Mfg. Co., Cincinnati, O.
Warsaw Elevator Co., Warsaw, N. Y.

Holists, Skip—

C. W. Hunt Co., West New Brighton, N. Y.
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.

Holists, Trolley—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Brown Hoisting Machinery Co., Cleveland, O.

C. Browning Engineering Co., Cleveland, O.

Case Mfg. Co., Columbus, O.

Chisholm & Moore Mfg. Co., Cleveland, O.

Cleveland Crane & Car Co., Wickliffe, O.

General Pneumatic Tool Co., Montour Falls, N. Y.

C. W. Hunt Co., West New Brighton, N. Y.

Interstate Engineering Co., Bedford, O.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York

Niles-Bement-Pond Co., 111 Broadway, New York

Northern Engineering Works, Detroit, Mich.

Pawling & Harnischfeger, Milwaukee, Wis.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

J. G. Speidel, Reading, Pa.

Yale & Towne Mfg. Co., 9-15 Murray St., New York

Holists, Worm—

Jones & Laughlin Steel Co., Pittsburgh.

Holders, Bag—

Standard Scale & Supply Co., Pittsburgh, Pa.

Holders, Bit, Brace, Die—

Butterfield & Co., Derby Line, Vt.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

Holders, Blacking Box—

Wrightsville Hardware Co., Wrightsville, Pa.

Holders, Broom—

Raymond Mfg. Co., Corry, Pa.

Geo. S. Knapp, Bridgeport, Ct.

Rock River Mfg. Co., Dixon, Ill.

A. C. Williams, Ravenna, O.

Holders, Broom, Brush, Comb, Soap, Wire—

(See Household Articles, Wire.)

Holders, Cabinet Scraper—

Geo. H. Bishop & Co., Cincinnati, O.

Holders, Card—

Wire Goods Co., Worcester, Mass.

Holders, Card and Label—

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Eagle Lock Co., Terryville, Ct.

Parker Wire Goods Co., Worcester, Mass.

Stanley Works, New Britain, Ct.

Holders, Champagne Bottle, Silver Plated—

International Silver Co., 9-13 Maiden Lane, New York

Holders, Christmas Tree—

North Bros. Mfg. Co., Philadelphia, Pa.

Holders, Copy—

Scranton & Co., New Haven, Ct.

Holders, Cuff and Napkin—

American Ring Co., Waterbury, Ct.

Holders, Die—

J. M. Carpenter Tap & Die Co., Pawtucket, R. I.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

Wells Bros. & Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Holders, Divider Pencil—

Bemis & Call Hardware & Tool Co., Springfield, Mass.

Keuffel & Esser Co., 127 Fulton St., New York

Wm. Schollhorn Co., New Haven, Ct.

Holders, Door—

Joseph Bardsley, 147-151 Baxter St., N. Y.

Brohard Co., Hutchinson St. & Columbia Ave., Philadelphia, Pa.

Caldwell Mfg. Co., Rochester, N. Y.

National Mfg. Co., Sterling, Ill.

Pullman Mfg. Co., Rochester, N. Y.

Reading Hardware Co., Reading, Pa.

Richards Mfg. Co., Aurora, Ill.

Rock River Mfg. Co., Dixon, Ill.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York

Superior Spring Hinge Co., 15 S. Canal St., Chicago, Ill.

Wire Goods Co., Worcester, Mass.

Yale & Towne Mfg. Co., 9-15 Murray St., New York

Holders, Drill and Tap—

Armstrong Bros. Tool Co., 617 Austin Ave., Chicago, Ill.

Chandler & Farquhar Co., Boston, Mass.

Cleveland Twist Drill Co., Cleveland, O.

Hill Standard Mfg. Co., Anderson, Ind.

Wm. G. Le Count, 80. Norwalk, Ct.

Massachusetts Tool Co., Greenfield, Mass.

Mutual Mfg. Co., Bridgeport, Ct.

Pratt & Whitney Co., Hartford, Ct.

A. D. Quint, Hartford, Ct.

Wells Bros. Co., Greenfield, Mass.

Holders, Extension Bit and Screw Driver—

Millers Falls Co., 28 Warren St., N. Y.

Holders, Eye Glass—

American Ring Co., Waterbury, Ct.

Holders, Flagstaff—

Enterprise Mfg. Co., Philadelphia, Pa.

Holders, Fork—

Rock River Mfg. Co., Dixon, Ill.

Holders, Gas—

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Holders, Hose—

(See Hose Attachments.)

Holders, Hose Nozzle—

Specialty Mfg. Co., St. Anthony Park, Minn.

Holders, Key—

Ames Sword Co., Chicopee, Mass.

Holders, Lead Pipe—

Vanderman Plumbing & Heating Co.,
Willimantic, Ct.

Holders, Match and Match Box—

Arcade Mfg. Co., Freeport, Ill.
Columbia Grey Iron Co., Columbia, Pa.
Geo. S. Knapp, Bridgeport, Ct.
Taplin Mfg. Co., New Britain, Ct.

Holders, Micrometer—
Chandler & Farquhar Co., Boston, Mass.

Holders, Nipple—
Curtis & Curtis Co., Bridgeport, Ct.

Walworth Mfg. Co., Boston, Mass.
Wiley & Russell Mfg. Co., Greenfield, Mass.

Holders, Oil Stone—

Pike Mfg. Co., Pike, N. H.

Holders, Pen—

E. B. Estes & Sons, 45-47 John St., New York.

Holders, Pencil—

American Ring Co., Waterbury, Ct.

Holders, Photograph—

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Holders, Plate, Cup and Sauce—

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Holders, Reamer—

Billings & Spencer Co., Hartford, Ct.

Massachusetts Tool Co., Greenfield, Mass.

Mutual Mfg. Co., Bridgeport, Ct.

Pratt & Whitney Co., Hartford, Ct.

Holders, Rope—

J. D. Warren Mfg. Co., Chicago, Ill.

Holders, Sample—

W. O. Heller & Co., Montpelier, O.

Smith & Hemenway Co., 108-110 Duane St., New York.

J. D. Warren Mfg. Co., Chicago, Ill.

Holders, Sash—

Lawrence Bros., Sterling, Ill.

Holders, Soap—

(See Household Articles.)

Holders, Splasher—

Wire Goods Co., Worcester, Mass.

Holders, Spoon, Nickel and Silver Plated—

International Silver Co., 9-13 Maiden Lane, New York.

Holders, Stake, Wagon—

Griffin Mfg. Co., Erie, Pa.

Louden Machinery Co., Fairfield, Ia.

Stanley Works, New Britain, Ct.

Holders, Test Tube—

United States Clothes Pin Co., Montpelier, Vt.

Holders, Tire Bolt—

Wiley & Russell Mfg. Co., Greenfield, Mass.

Holders, Toilet Paper—

Fanner Mfg. Co., Cleveland, O.

Shelby Spring Hinge Co., Shelby, O.

Holders, Tool—

Armstrong Bros. Tool Co., Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.

Goodell-Pratt Co., Greenfield, Mass.

Hill-Standard Mfg. Co., Anderson, Ind.

Keystone Mfg. Co., Buffalo, N. Y.

O. K. Tool Holder Co., Shelton, Ct.

Pratt & Whitney Co., Hartford, Ct.

Western Tool & Mfg. Co., Springfield, O.

Holders, Towel—

Pritchard-Strong Co., Rochester, N. Y.

Holders, Twine—

John Chatillon & Sons, 85 Cliff St., N. Y.

Parker Wire Goods Co., Worcester, Mass.

Holding Machines, Foundry—

Wheeling Mold & Foundry Co., Wheeling, W. Va.

Hollow Augers, Drills, &c.—

(See Augers, Drills, &c.)

Hollow Ware—

(See Ware, Hollow, Silver Plated, Steel, &c.)

Hones, Carborundum—

Carborundum Co., Niagara Falls, N. Y.

Hones, Emery and Corundum—

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

Hones, Razor—

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Pike Mfg. Co., Pike, N. H.

A. L. Silberstein, 459-461 Broadway, N. Y.

Honing Razor Machines—

Kampfe Bros., 8-12 Reade St., New York.

Hoods, Automobile—

(See Automobile Hoods.)

Hoods, Fireplace—

Murdock-Shaw Co., Boston, Mass.

Hoods, Safety, for Grinding Machines—

Norton Emery Wheel Co., Worcester, Mass.

Norton Grinding Co., Worcester, Mass.

Hoof Knives—

(See Knives, Farriers.)

Hook and Eye Machinery—

Baird Machine Co., Oakville, Ct.

Blake & Johnson, Waterbury, Ct.

E. J. Manville Machine Co., Waterbury, Ct.

A. H. Nilson Mach. Co., Bridgeport, Ct.

Hook Head Bolts—

(See Bolts, Special.)

Hook Plates, Steel—

(See Plates, Pipe, Hook, Steel.)

Hooks and Eyes, Malleable—

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Hooks and Eyes, Screw—

(See Wire Goods, Bright.)

Hooks and Thimbles—

Broderick & Bascom Rope Co., St. Louis, Mo.

Covett Mfg. Co., Troy, N. Y.

M. Lanz & Sons, Pittsburgh, Pa.

A. Leschen & Sons Rope Co., St. Louis, Mo.

W. & J. Tiebout, 118 Chambers St., New York.

Hooks, Awning—

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Parker Wire Goods Co., Worcester, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

W. & J. Tiebout, 118 Chambers St., New York.

Hooks, Back Band—

(See Buckles, Back Band.)

Hooks, Bale, Box, Hog-head, &c.—

W. & J. Tiebout, 118 Chambers St., New York.

Hooks, Bed—

Schuchardt & Schutte, 136 Liberty St., New York.

Hooks, Meat—

M. S. Brooks & Sons, Chester, Ct.
Enterprise Mfg. Co., Philadelphia, Pa.
Landers, Fry & Clark, New Britain, Ct.
Parker Wire Goods Co., Worcester, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.
Wire Goods Co., Worcester, Mass.

Hooks, Mirror—

Wire Goods Co., Worcester, Mass.

Hooks, Molding—

(See Hooks, Picture Molding.)

Hooks, Overhead Carrying Track—

Broderick & Bascom Rope Co., St. Louis,
Case Mfg. Co., Columbus, O.
A. Leichen & Sons Rope Co., St. Louis.
F. E. Myers & Bro., Ashland, O.

Hooks, Painters' Ladder—

Wire Goods Co., Worcester, Mass.

Hooks, Picture Molding—

M. S. Brooks & Sons, Chester, Ct.
Ossawan Mills Co., Norwich, Ct.
Parker Wire Goods Co., Worcester, Mass.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York
Wire Goods Co., Worcester, Mass.

Hooks, Pipe—

Berger Bros. Co., 231-237 Arch St., Phila-
delphia, Pa.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Hooks, Potato, Manure, &c.—

American Iron & Hoe Co., Cleveland, O.
Continental Tool Co., Frankfort, N. Y.

Hooks, Saddle—

Wire Goods Co., Worcester, Mass.

Hooks, Sap Spout—

Parker Wire Goods Co., Worcester, Mass.

Hooks, Shackle—

Keystone Drop Forge Works, Chester, Pa.

Hooks, Staple, &c.—

(See Wrought Iron Goods.)

Hooks, Store Rack—

Reading Hardware Co., Reading, Pa.

Hooks, Strap—

M. S. Brooks & Sons, Chester, Ct.
E. Jenckes Mfg. Co., Pawtucket, R. I.
Parker Wire Goods Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.

Hooks, Telegraph—

M. S. Brooks & Sons, Chester, Ct.
Parker Wire Goods Co., Worcester, Mass.

Hooks, Ticket—

M. S. Brooks & Sons, Chester, Ct.
Parker Wire Goods Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.

Hooks, Timber Carrying—

Peter Gerlach Co., Cleveland, O.

Hooks, Toilet and Towel—

Reading Hardware Co., Reading, Pa.
Yale & Towne Mfg. Co., 9-15 Murray St.,
New York

Hooks, Weeding—

F. E. Kohler & Co., Canton, O.
Potter Mfg. Co., Geneva, O.
Smith & Hemenway Co., 108-110 Duane
St., New York.

Hooks, Well Wheel—

Reading Hardware Co., Reading, Pa.
Vaughan & Bushnell Mfg. Co., Chicago.

Hooks, Whistle Cord—

American Railway Supply Co., 24 Park
Place, New York.

Hoop Brass—

(See Brass.)

Hoops and Bands—

Carnegie Steel Co., Pittsburgh, Pa.
Jones & Laughlin Steel Co., Pittsburgh.
Pittsburgh Steel Co., Pittsburgh, Pa.
West Leechburg Steel Co., Pittsburgh, Pa.
Youngstown Sheet & Tube Co., Youngs-
town, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
Cabeen & Co., Real Estate Trust Bldg.,
Philadelphia, Pa.

C. B. Houston & Co., Girard Bldg.,
Philadelphia, Pa.

Harold McCalla, 619 N. Front St., Phila-
delphia, Pa.

McClernan & Orr, Monadnock Block, Chi-
cago, Ill.

John B. Newkirk & Co., 15th & Market
Sts., Philadelphia, Pa.

Ogden & Wallace, 577 Greenwich St.,
New York.

Pierson & Co., 29 Broadway, New York.
Horace T. Potts & Co., 316 N. 3d St.,
Philadelphia, Pa.

Joseph T. Ryerson & Son, 12-22 Milwau-
kee Ave., Chicago, Ill.

G. H. Schrock, 291 Pearl St., New York.
Scully Steel & Iron Co., Halsted and
Wayman Sts., Chicago, Ill.

Hoops and Bands, Galva-**nized—**

(See Galvanized Angles, Bars, &c.)

Hoops, Embroidery—

E. B. Estes & Sons, 45-47 John St., New
York.

Hoops, Mast—

W. & J. Tiebout, 113 Chambers St., N. Y.

Hoops, Seamless Cheese—

Sturges & Burn Mfg. Co., Chicago, Ill.

Hoops, Tub—

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Hoppers, Coal and Gas Pro-**ducer—**

American Furnace & Machine Co., Pitts-
burgh, Pa.

Link-Belt Engineering Co., Nicetown,
Philadelphia, Pa.

Hoppers, Slop—

John C. Kupferle, St. Louis, Mo.

Horns, Shoe—

International Silver Co., 9-13 Maiden Lane,
New York.

R. O. Jenkinson & Co., Newark, N. J.

Pritchard-Strong Co., Rochester, N. Y.

Horse Brushes, Clippers,**&c.—**

(See Brushes, Clippers, &c.)

Horse Hay Forks—

(See Haying Tools.)

Horse Powers—

Broderick & Bascom Rope Co., St. Louis.
Thomas Carlin's Sons, Allegheny, Pa.

F. E. Myers & Bro., Ashland, O.

Rock River Mfg. Co., Dixon, Ill.

Horse Radish Graters—

(See Graters, Horse Radish, &c.)

Horse Tail Bands—

(See Bands, Horse Tail.)

Horse Ties—

(See Ties, Cattle and Horse.)

Horse Tooth Rasps—

(See Rasps, Horse Tooth.)

Horseshoe Iron—

(See Iron, Horseshoe.)

Horseshoers' Vises—

(See Vises, Horseshoers'.)

Hose, Air Brake and Signal.
New York Belting & Packing Co., 91-93 Chambers St., New York.

Hose, Air Tool.
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.

New York Belting & Packing Co., 91-93 Chambers St., New York.
Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Hose, Armored.
Sprague Electric Co., 527 W. 34th St., New York.

Hose Attachments (Wend-ers, Couplings, Bands, Holders, Reducers, Clamps, Caps, &c.).
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

W. J. Clark Co., Salem, O.
John H. Graham & Co., 113 Chambers St., New York.

Ingersoll-Rand Co., 11 Broadway, New York.

F. E. Kohler & Co., Canton, O.
John C. Kupferle, St. Louis, Mo.
McNab & Harlin Mfg. Co., 56 John St., New York.

H. Mueller Mfg. Co., Decatur, Ill.
Pleuger & Henger Mfg. Co., St. Louis, Mo.
Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Hose, Car Heating.
New York Belting & Packing Co., 91-93 Chambers St., New York.

Hose, Fire.
New York Belting & Packing Co., 91-93 Chambers St., New York.

Hose, Garden.
New York Belting & Packing Co., 91-93 Chambers St., New York.

Hose Nozzle Holders.
(See Holders, Hose Nozzle.)

Hose, Pneumatic.
Northern Engineering Works, Detroit, Mich.

Hose Reels.
(See Reels, Hose.)

Hose, Steam.
New York Belting & Packing Co., 91-93 Chambers St., New York.

Hose, Suction.
New York Belting & Packing Co., 91-93 Chambers St., New York.

Hot Air Cook Pans.
(See Pans, Cook, Hot Air.)

Hot House Pulleys.
(See Pulleys, Hot House.)

Hot Plates.
(See Plates, Hot.)

Hotel and Restaurant Cooking Apparatus (Stock Boilers, Roasting Ovens, Vegetable Boilers and Steamers, Oyster Stewers, Furnace and Caldron, &c.).
Lalanc & Grosjean Mfg. Co., 19 Cliff St., New York.

Schneider & Trencamp Division, American Stove Co., Cleveland, O.

Hound Plates.
(See Plates, Hound.)

House Bells, Heaters, Num-bers.
(See Bells, Furnaces and Boilers, Letters.)

House Movers.
(See Movers, House.)

House Wreckers.
(See Wreckers, House.)

Household Articles, Wire (Dish Covers, Easels, Plate Handlers, Lamp Chimney Heaters, Broom Holders, Brush and Comb Holders, Soap Holders, Table Mats, Meat Rests, Shirt Rests, Stove Pipe Shelves, Soap Brackets, Tea and Coffee Pot Stands, Tea and Coffee Pot Strainers, &c.).
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Kilbourne Mfg. Co., Troy, N. Y.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Parker Wire Goods Co., Worcester, Mass.
Pritchard-Strong Co., Rochester, N. Y.
Wire Goods Co., Worcester, Mass.

Houses, Portable.
Phenix Mfg. Co., Milwaukee, Wis.

Houses, Wire Summer.
Estey Wire Works Co., 59 Fulton St., New York.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Hub Boring Machines.
Defiance Machine Works, Defiance, O.
Niles-Bement-Pond Co., 111 Broadway, New York.

Silver Mfg. Co., Salem, O.

Hub Machines, Bicycle.
Dresses Machine Co., Cincinnati, O.
Fox Machine Co., Grand Rapids, Mich.
Garvin Machine Co., Spring and Varick Sts., New York.

Hartford Machine Screw Co., Hartford, Ct.
Hull & Whitney Co., Hartford, Ct.

Hubs, Bicycle.
Hartford Machine Screw Co., Hartford, Ct.
John R. Keim Mills, Buffalo, N. Y.
Sturges & Burn Mfg. Co., Chicago, Ill.

Hubs, Steel Automobile.
Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

John R. Keim Mills, Buffalo, N. Y.
Ohio Brass Co., Mansfield, O.

Hulls and Barges, Steel.
(See Barges and Hulls.)

Humidors.
E. B. Estes & Sons, 45-47 John St., New York.

Huskers, Pins and Gloves.
Cleveland Lock Co., Cleveland, O.
John H. Graham & Co., 113 Chambers St., New York.

Hydrant Chain.
(See Chain, Hydrant.)

Hydrants and Street Wash-ers.

Chapman Valve Mfg. Co., Boston, Mass.
Deming Co., Salem, O.
Dimmick Pipe Co., Birmingham, Ala.
W. & B. Douglas, Middletown, Ct.
Fairbanks Co., 415 Broome St., New York.
Goulds Mfg. Co., Seneca Falls, N. Y.
Howard Iron Works, Buffalo, N. Y.
Humphreys Mfg. Co., Mansfield, O.
Kennedy Valve Mfg. Co., 53 Beckman St., New York.

John O. Kupferle, St. Louis, Mo.
McNab & Harlin Mfg. Co., 56 John St., New York.

Mast, Foss & Co., Springfield, O.
H. Mueller Mfg. Co., Decatur, Ill.

F. E. Myers & Bro., Ashland, O.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Peuget & Henger Mfg. Co., St. Louis, Mo.
Union Mfg. Co., New Britain, Ct.
R. D. Wood & Co., 400 Chestnut St.,
Philadelphia, Pa.

Hydraulic Accumulators.

Cranes, &c.—
(See Accumulators, Cranes, &c.)

Hydraulic Machinery—

Henry Aiken, Pittsburgh, Pa.
Aiton Machine Co., 126 Liberty St., New
York.
Birdsboro Steel Foundry & Machine Co.,
Birdsboro, Pa.
Chambersburg Engineering Co., Chambers-
burg, Pa.
Richard Dudgeon, 24-26 Columbia St.,
New York.
C. F. Elmes Engineering Works, 253-259
Fulton St., Chicago, Ill.
Fischer Foundry & Machine Co., Pitts-
burgh, Pa.
S. V. Huber & Co., Pittsburgh, Pa.
Julian Kennedy, Pittsburgh, Pa.
Walter Kennedy, Pittsburgh, Pa.
Mesta Machine Co., Pittsburgh, Pa.
Niles-Bement-Pond Co., 111 Broadway,
New York.
Pennsylvania Engineering Works, New
Castle, Pa.
Philadelphia Roll & Machine Co., 23d
St. & Washington Ave., Philadelphia.
Power Specialty Co., 111 Broadway, New
York.
Wm. Sellers & Co. (Inc.), Philadelphia.
S. R. Smyth Co., Pittsburgh, Pa.
William Tod Co., Youngstown, O.
Waterbury Farr & Foundry & Machine
Co., Waterbury, Ct.
Watson-Sillman Co., 46 Dey St., New
York.
Wellman-Seaver-Morgan Co., Cleveland, O.
Wickes Bros., Saginaw, Mich.
R. D. Wood & Co., 400 Chestnut St.,
Philadelphia, Pa.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.
Marshall & Huschart Machinery Co., 62
S. Canal St., Chicago, Ill.
Joseph T. Ryerson & Son, 18-22 Milwau-
kee Ave., Chicago, Ill.
Scully Steel & Iron Co., 69 N. Halsted
St., Chicago, Ill.
Stiles-Morse Co., Western Union Bldg.,
Chicago, Ill.
C. C. Wormer Machinery Co., Detroit,
Mich.

Hydro-Carbon Lamps—

(See Lamps, Gasoline Gas.)

Hydrometers—

American Steam Gauge & Valve Co.,
Boston, Mass.
Biggs & Bros., 310 Market St., Philadel-
phia, Pa.

Ice Axes, Bars, &c.—

(See Axes, Bars, &c.)

Ice Bowls—

(See Bowls, Silver Plated.)

Ice Chests—

(See Refrigerators and Ice Chests.)

Ice Cream Tubs—

(See Pails and Tubs.)

Ice Harvesting Tools
(Augers, Breakers, Chisels,
Forks, Grapplers,
Hooks, Markers, Meas-
uring Irons, Planes, Plows,

House and Car Runs, Saws, Shavers, Scrapers, Adzes and Scoop Nets—

American Fork & Hoe Co., Cleveland, O.
Henry Disston & Sons, Philadelphia, Pa.
Peter Gerlach Co., Cleveland, O.
Gifford-Wood Co., Arlington, Mass.
Ice Making Machinery—
Gifford-Wood Co., Arlington, Mass.
Vilter Mfg. Co., Milwaukee, Wis.

Ice Pick Handles—

(See Handles, Grass Hook, &c.)

Implement, Agricultural and Garden—

(See Agricultural Implements.)

Implements, Gun—

(See Gun Implements.)

Importers, English—

Hanson, Brown & Co., Ltd., Middles-
brough, England.

Importers, Hardware and

Cutlery—

Hermann Boker & Co., 101 Duane St.,
New York.
Alfred Field & Co., 93 Chambers St.,
New York.
Schuchardt & Schutte, 136 Liberty St.,
New York.
Smith & Hemenway Co., 108-110 Duane
St., New York.
Wiebusch & Hilger, 9-15 Murray St., N. Y.
Importers, Iron and Steel—
Reed F. Blair & Co., Pittsburgh, Pa.
Goff, Horner & Co., Ltd., Pittsburgh, Pa.
Arthur C. Harvey Co., Boston, Mass.
James Lee & Co., 76 William St., New
York.

N. Lilienberg, Betz Bldg., Philadelphia.
A. Milne & Co., 1 Broadway, New York.
J. J. Mohr, Bullitt Bldg., Philadelphia.
Geo. Nash & Co., 24 S. Clinton St., Chi-
cago, Ill.

John B. Newkirk & Co., Harrison Bldg.,
Philadelphia, Pa.
Phillips-Lafitte Co., Pennsylvania Bldg.,
Philadelphia, Pa.

Pierson & Co., 29 Broadway, New York.
Pilling & Crane, Girard Bldg., Philadel-
phia, Pa.
Pittsburgh Railway Supply Co., Pitts-
burgh, Pa.

Horace T. Potts & Co., 316 N. 3d St.,
Philadelphia, Pa.
Rogers, Brown & Co., Cincinnati, O.
Frank Samuel, Harrison Bldg., Philadel-
phia, Pa.

Schuchardt & Schutte, 136 Liberty St.,
New York.

Chas. G. Shepard, Buffalo, N. Y.
Wheelock, Lovejoy & Co., 23 Cliff St.,
New York.

R. D. Wood & Co., 400 Chestnut St.,
Philadelphia, Pa.

Incandescent Lamps—

(See Lamps, Incandescent.)

Inclinometers—

Keuffel & Esser Co., 127 Fulton St.,
New York.

L. S. Starrett Co., Athol, Mass.

Index Plates For Gear Cut- ting—

Brown & Sharpe Mfg. Co., Providence,
R. I.

Gleason Works, Rochester, N. Y.

Index Plates For Milling

Machines—

Brown & Sharpe Mfg. Co., Providence,
R. I.

Indexing Heads—
(See Heads, Indexing and Dividing.)
Indian Club Hangers—
(See Hangers, Dumb Bell and Indian Club.)

Indian Clubs—
(See Clubs, Indian.)
Indicator, Bath, for Machine Testing—

Norton Emery Wheel Co., Worcester, Mass.

Indicator Posts for Valves—
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Indicators, Center—
J. T. Slocumb Co., Providence, R. I.

Indicators for Machine Testing—
Brown & Sharpe Mfg. Co., Providence, R. I.

L. S. Starrett Co., Athol, Mass.

Indicators, Horse-Power—
Keuffel & Esser Co., 127 Fulton St., New York.

Indicators, Mechanical Pump—

Wm. Powell Co., Cincinnati, O.

Indicators, Speed—
American Steam Gauge & Valve Co., Boston, Mass.

Edward Brown & Son, 311½ Walnut St., Philadelphia, Pa.

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Chicago Wheel & Mfg. Co., 39 W. Randolph St., Chicago, Ill.

Henry Disston & Sons, Philadelphia, Pa.

W. N. Durant Co., Milwaukee, Wis.

Manning, Maxwell & Moore, 85 Liberty St., New York.

Simonds Mfg. Co., Fitchburg, Mass.

L. S. Starrett Co., Athol, Mass.

Veeder Mfg. Co., Hartford, Ct.

R. Woodman Mfg. & Supply Co., Boston, W. 25th St., New York.

Indicators, Speed Recording—

Edward Brown & Son, 311½ Walnut St., Philadelphia, Pa.

Indicators, Steam Engine—
American Steam Gauge & Valve Co., Boston, Mass.

Ashton Valve Co., Boston, Mass.

Crosby Steam Gauge & Valve Co., Boston, Manning, Maxwell & Moore, 85 Liberty St., New York.

Ingot, Bronze—

Riverside Metal Co., Riverside, N. J.

E. W. Vanduzen Co., Cincinnati, O.

Ingot, Manganese Bronze—
Paul S. Reeves & Son, Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Ingot, Phosphor Bronze—
Phosphor-Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.

Paul S. Reeves & Son, Philadelphia, Pa.

Ingot, Steel—
Carnegie Steel Co., Pittsburgh, Pa.

Injectors, Boiler—
Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

Fairbanks Co., 418 Broome St., New York.

Hancock Inspirator Co., 85-89 Liberty St., New York.

Imperial Brass Mfg. Co., 241 S. Jefferson St., Chicago, Ill.

Jenkins Bros., 71 John St., New York.

Lunkenheimer Co., Cincinnati, O.

Manning, Maxwell & Moore, 85 Liberty St., New York.

Wm. Powell Co., Cincinnati, O.

1111 Sellers & Co. (Inc.), Philadelphia.

Inks, Drawing—
Keuffel & Esser Co., 127 Fulton St., N. Y.

Inkstands—
(See Stationers' Hardware.)

Inkstands, Silver Plated—
(See Desk Specialties.)

Insect Powder Guns—
(See Guns, Insect Powder.)

Inspectors' Scales, Leather—
(See Scales, Leather Inspectors.)

Inspirators—
(See Injectors, Boiler.)

Instruments, Drawing—
Keuffel & Esser Co., 127 Fulton St., N. Y.

L. S. Starrett Co., Athol, Mass.

Instruments, Electric Testing—
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Instruments, Engineers—
Keuffel & Esser Co., 127 Fulton St., N. Y.

Instruments, Forestry—
Keuffel & Esser Co., 127 Fulton St., N. Y.

Instruments, Leveling and Squaring—
Athol Machine Co., Athol, Mass.

Keuffel & Esser Co., 127 Fulton St., N. Y.

L. S. Starrett Co., Athol, Mass.

Instruments, Mathematical—
Keuffel & Esser Co., 127 Fulton St., N. Y.

Instruments, Nautical—
Keuffel & Esser Co., 127 Fulton St., N. Y.

Riggs & Bro., 310 Market St., Philadelphia, Pa.

Instruments, Surveying—
Keuffel & Esser Co., 127 Fulton St., N. Y.

Insulating Machinery for Wire—
Aiton Machine Co., 126 Liberty St., New York.

Farrel Foundry & Mach. Co., Ansonia, Ct.

Insulating Materials—
Samuel Cabot, Boston, Mass.

Insulating Supplies, Electrical—
H. W. Johns-Manville Co., 100 William St., New York.

Insulators, Lava, Electric—
Stanley G. Flagg & Co., Philadelphia, Pa.

Insulators, Trolley—
Billings & Spencer Co., Hartford, Ct.

General Electric Co., Schenectady, N. Y.

Intercoolers, Air—
Ingersoll-Rand Co., 11 Broadway, New York.

Interfering Boots—
(See Boots, Interfering.)

Iron and Brass Studs—
(See Studs, Brass and Iron.)

Iron and Steel, Brokers and Merchants—
Birdsboro Iron & Steel Breaking Co., Ltd., Birdsboro, Pa.

Reed F. Blair & Co., Pittsburgh, Pa.

M. J. & M. Blake, 97 10th Ave., N. Y.

Bole, Ross & Co., Pittsburgh, Pa.

Bourne-Fuller Co., Cleveland.

Cabeen & Co., Real Estate Trust Building, Philadelphia, Pa.

- Chicago House Wrecking Co., 35th and Iron Sts., Chicago, Ill.
- Justice Cox, Jr., & Co., Ltd., Land Title Bldg., Philadelphia, Pa.
- R. M. Cumliffe, 116-112 Washington Ave., Philadelphia, Pa.
- Dallett & Co., Harrison Bldg., Philadelphia, Pa.
- Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.
- J. K. Dimmick & Co., 2923 New Land Title Bldg., Philadelphia, Pa.
- Fairbanks Co., 416 Broome St., New York.
- Goff, Horner & Co., Ltd., Pittsburgh, Pa.
- Walter Graham, Harrison Bldg., Philadelphia, Pa.
- Arthur C. Harvey Co., Boston, Mass.
- I. C. Hirsch Iron, Steel & Rail Co., Cincinnati, O.
- L. K. Hirsch Co., 71 Broadway, N. Y.
- C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.
- Hyde Bros. & Co., Pittsburgh, Pa.
- Jerome Keeley & Co., 421 Chestnut St., Philadelphia, Pa.
- Ernest Lay & Co., 15th and Market Sts., Philadelphia, Pa.
- J. Tatum Lea & Co., 19 So. 12th St., Philadelphia, Pa.
- C. W. Leavitt & Co., 220 Broadway, New York.
- James Lee & Co., 76 William St., New York.
- John Leonard & Co., 220 Broadway, N. Y.
- Henry Levis & Co., 26 So. 15th St., Philadelphia, Pa.
- N. Lillenberg, Betz Bldg., Philadelphia.
- McClernan & Orr, Monadnock Block, Chicago, Ill.
- Merchant & Evans Co., 517 Arch St., Philadelphia, Pa.
- A. Milne & Co., 1 Broadway, New York.
- J. J. Mohr, 131 So. 4th St., Philadelphia.
- Geo. Nash & Co., 24 So. Clinton St., Chicago, Ill.
- John B. Newkirk & Co., Harrison Bldg., Philadelphia, Pa.
- Ogden & Wallace, 577 Greenwich St., N. Y.
- Samuel Osborn & Co., Boston, Mass.
- Patterson, Gottfried & Hunter, 146-150 Centre St., New York.
- Phillips-Laffitte Co., Pennsylvania Bldg., Philadelphia, Pa.
- Pierson & Co., 29 Broadway, N. Y.
- Pilling & Crane, Girard Bldg., Philadelphia, Pa.
- Horace T. Potts & Co., 316-320 No. 3d St., Philadelphia, Pa.
- Potts & Wittman, North American Bldg., Philadelphia, Pa.
- J. Wesley Pullman, 238 S. 3d St., Philadelphia, Pa.
- Joseph T. Ryerson & Son, 13-22 Milwaukee Ave., Chicago, Ill.
- Frank Samuel, 15th and Market Sts., Philadelphia, Pa.
- G. H. Schrock, 291 Pearl St., New York.
- Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
- Shook & Fletcher, Birmingham, Ala.
- Morton B. Smith Co., 213 Front St., N. Y.
- W. P. Snyder & Co., Pittsburgh, Pa.
- Steel Rail Supply Co., 100 Broadway, New York.
- Charles G. Stevens Co., 60 S. Canal St., Chicago, Ill.
- Waite, Banlet & Co., Boston, Mass.
- William B. Walter & Co., Marquette Bldg., Chicago, Ill.
- Wheeler, Miffin & Co., Fidelity Bldg., Philadelphia, Pa.
- Wheelock, Lovejoy & Co., 23 Cliff St., New York.
- E. H. Wilson & Co., 112 No. Broad St., Philadelphia, Pa.
- L. & R. Wister & Co., Bullitt Bldg., Philadelphia, Pa.
- Iron and Steel, Hexagon—**
Interstate Iron & Steel Co., First National Bank Bldg., Chicago, Ill.
- Lockhart Iron & Steel Co., Pittsburgh.**
- Iron and Steel Stairs—**
(See Stairs, Iron and Steel.)
- Iron and Steel, Swedish—**
MERCHANTS.
- Bourne-Fuller Co., Cleveland, O.
- Arthur C. Harvey Co., Boston, Mass.
- N. Lillenberg, Betz Bldg., Philadelphia.
- A. Milne & Co., 1 Broadway, New York.
- Geo. Nash & Co., 24 S. Clinton St., Chicago, Ill.
- Pierson & Co., 29 Broadway, New York.
- Horace T. Potts & Co., 316-320 No. 3d St., Philadelphia, Pa.
- Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
- Charles G. Stevens Co., 60 S. Canal St., Chicago, Ill.
- Wheelock, Lovejoy & Co., 23 Cliff St., New York.
- Iron and Steel Wire—**
(See Wire, Iron and Steel, Market, Fence, Stone, &c.)
- Iron Awnings—**
(See Awnings, Iron.)
- Iron, Axle—**
Lockhart Iron & Steel Co., Pittsburgh, Pa.
- Samuel Osborn & Co., Boston, Mass.
- Iron, Bar—**
Interstate Iron & Steel Co., First National Bank Bldg., Chicago, Ill.
- Kinsley Iron & Machine Co., Canton, Mass.
- Sligo Iron & Steel Co., Pittsburgh, Pa.
- Iron Bars, Cold Rolled Sheet, Corrugated, &c.—**
(See Bars, Corrugated, &c.)
- Iron Bedsteads, Lamps, &c.—**
(See Bedsteads, Lamps, &c.)
- Iron, Boiler Braces—**
Lockhart Iron & Steel Co., Pittsburgh, Pa.
- Samuel Osborn & Co., Boston, Mass.
- Iron, Brass and Bronze, Ornamental (Grilles, Gates, Crestings, Finials, Window Guards, Vases, Wickets, Doors, &c.)—**
Adam's Steel & Wire Works, Joliet, Ill.
- Anchor Post Iron Works, 41 Park Row, New York.
- Belmont Iron Works, Inc., Philadelphia.
- Berger Mfg. Co., Canton, O.
- Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
- Buffalo Wire Works Co., Buffalo, N. Y.
- Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
- Chesapeake Iron Works, Baltimore, Md.
- City Forge & Iron Works, Dayton, O.
- Clinton Wire Cloth Co., Clinton, Mass.
- Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
- Enterprise Foundry & Fence Co., Indianapolis, Ind.

Esey Wire Works Co., 59 Fulton St., New York.

Forest City Steel & Iron Co., Cleveland.
Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Glen Mfg. Co., Ellwood City, Pa.

Howard & Morse, 45 Fulton St., N. Y.

W. N. Kratzer & Co., Pittsburgh, Pa.

Mathew Lanz & Sons, Pittsburgh, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Merritt & Co., 1024-1028 Ridge Ave., Philadelphia, Pa.

Murdock-Shaw Co., Boston, Mass.

National Iron & Wire Co., Cleveland, O.

Ohio Structural Iron Co., Sandusky, O.

J. B. Shannon & Sons, 816 Chestnut St., Philadelphia, Pa.

John P. Smith & Co., New Haven, Ct.

Stewart Iron Works Co., Cincinnati, O.

E. H. Titchener & Co., Binghamton, N.Y.

W. B. Tyler Co., Cleveland, O.

Van Dorn Iron Works Co., Cleveland, O.

Winslow Bros. Co., 2515 W. Harrison St., Chicago, Ill.

Wright Wire Co., Worcester, Mass.

Iron Ceiling and Siding—

(See Ceiling and Siding, Iron and Steel.)

Iron Faucets—

(See Faucets, Iron.)

Iron, Horizontal—

Interstate Iron & Steel Co., First National Bank Bldg., Chicago, Ill.

Lockhart Iron & Steel Co., Pittsburgh, Pa.

Republic Iron & Steel Co., Chicago, Ill.

Sligo Iron & Steel Co., Pittsburgh, Pa.

Iron Levels—

(See Levels, also Plumbs and Levels.)

Iron Line Wire, Weather-proof—

(See Wire, Electrical.)

Iron, Pig—

Carnegie Steel Co., Pittsburgh, Pa.

Central Iron & Steel Co., Harrisburg, Pa.

Columbus Iron & Steel Co., Columbus, O.

Pilling & Crane, Girard Bldg., Philadelphia, Pa.

Republic Iron & Steel Co., Chicago, Ill.

Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Reed F. Blair & Co., Pittsburgh, Pa.

Bole, Ross & Co., Pittsburgh, Pa.

Bourne-Fuller Co., Cleveland, O.

Cabene & Co., Real Estate Trust Bldg., Philadelphia, Pa.

Justice Cox, Jr. & Co. Ltd., Land Title Bldg., Philadelphia, Pa.

J. K. Dimmick & Co., 223 New Land Title Bldg., Philadelphia, Pa.

Goff, Horner & Co. Ltd., Pittsburgh, Pa.

Hickman, Williams & Co., Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.

J. Brooks Fenno & Co., Boston, Mass.

J. H. Hillman & Son, Pittsburgh, Pa.

Walter Graham, Harrison Bldg., Philadelphia, Pa.

I. K. Hirsch Co., 71 Broadway, N. Y.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

Jerome Keeley & Co., 421 Chestnut St., Philadelphia, Pa.

Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.

J. Tatnall Lea & Co., 19 So. 12th St., Philadelphia, Pa.

C. W. Leavitt & Co., 220 Broadway, New York.

N. Lilienberg, Betz Bldg., Philadelphia.

J. J. Mohr, 131 S. 4th St., Philadelphia.

Phillips-Laditte Co., Pennsylvania Bldg., Philadelphia, Pa.

J. Wesley Pullman, Philadelphia, Pa.

Rogers, Brown & Co., Cincinnati, O.

Frank Samuel, 15th & Market Sts., Philadelphia, Pa.

Charles G. Shepard, Buffalo, N. Y.

W. P. Snyder & Co., Pittsburgh, Pa.

Wheeler, Milfin & Co., Fidelity Bldg., Philadelphia, Pa.

E. H. Wilson & Co., 112 No. Broad St., Philadelphia, Pa.

L. & R. Wister & Co., Bullitt Bldg., Philadelphia, Pa.

Iron, Pig, Basic—

Carnegie Steel Co., Pittsburgh, Pa.

La Belle Iron Works, Steubenville, O.

Iron, Pig, Charcoal—

Carnegie Steel Co., Pittsburgh, Pa.

Columbus Iron & Steel Co., Columbus, O.

Falls Hollow Staybolt Co., Cuyahoga Falls, O.

Superior Charcoal Iron Co., Grand Rapids, Mich.

MERCHANTS.

J. K. Dimmick & Co., 223 New Land Title Bldg., Philadelphia, Pa.

Goff, Horner & Co. Ltd., Pittsburgh, Pa.

J. H. Hillman & Son, Pittsburgh, Pa.

J. J. Mohr, Bullitt Bldg., Philadelphia.

J. Wesley Pullman, 238 S. 3d St., Philadelphia, Pa.

Rogers, Brown & Co., Cincinnati, O.

Iron, Rivet and Stay Bolt—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Falls Hollow Staybolt Co., Cuyahoga Falls, O.

Interstate Iron & Steel Co., First National Bank Bldg., Chicago, Ill.

Lockhart Iron & Steel Co., Pittsburgh, Pa.

Samuel Osborn & Co., Boston, Mass.

Republic Iron & Steel Co., Chicago, Ill.

Sligo Iron & Steel Co., Pittsburgh, Pa.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.

Arthur C. Harvey Co., Boston, Mass.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Iron Roofing, Rosettes—

(See Roofing, Rosettes.)

Iron, Tire—

Carnegie Steel Co., Pittsburgh, Pa.

Sligo Iron & Steel Co., Pittsburgh, Pa.

Iron, Welding—

(See Welding, Iron and Steel, Thermit Process.)

Iron Work, Builders' (Veranda Columns, Post Caps and Sockets, Ornamental, Porticoes, Coal Holes and Covers, Manhole Cistern Covers, Sidewalk Lights, Area Gratings, Foundation Gratings, Sewer Gratings, Ash Pit Doors, Ventilating Plates, Sash, Skylight Guards, Canopies, Balconies, Area Railings, Gutter Crookings, &c.)

Allentown Rolling Mills, Allentown, Pa.

- Chester B. Albree Iron Works Co., Allegheny, Pa.
 Anchor Fast Iron Works, 41 Park Row, New York.
 Badger State Machine Co., Janesville, Wis.
 Barbour-Stockwell Co., Cambridgeport, Mass.
 Barnes Mfg. Co., Mansfield, O.
 Belmont Iron Works, Inc., Philadelphia, Pa.
 Berger Mfg. Co., Canton, O.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 A. Buch's Sons Co., Elizabethtown, Pa.
 Buffalo Foundry Co., Buffalo, N. Y.
 Thomas Carlin's Sons, Allegheny, Pa.
 Chattanooga Car & Foundry Co., Chattanooga, Tenn.
 Chesapeake Iron Works, Baltimore, Md.
 Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
 J. B. & J. M. Cornell, 26th St. and 11th Ave., New York.
 Dimmick Pipe Co., Birmingham, Ala.
 Enterprise Foundry & Fence Co., Indianapolis, Ind.
 Ford & Donnelly, Kokomo, Ind.
 Forest City Steel & Iron Co., Cleveland, O.
 Franklin Boiler Works Co., Troy, N. Y.
 Glen Mfg. Co., Ellwood City, Pa.
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
 Hess, Snyder & Co., Massillon, O.
 Humphrey Machine Co., Keene, N. H.
 Kramer Bros. Foundry Co., Dayton, O.
 W. N. Kratzer & Co., Pittsburgh, Pa.
 John C. Kuperle, St. Louis, Mo.
 Matthew Lanz & Sons, Pittsburgh, Pa.
 Lough-Scott Co., 26 Cortlandt St., New York.
 Ludlow-Saylor Wire Co., St. Louis, Mo.
 Merritt & Co., 1024-1028 Ridge Ave., Philadelphia, Pa.
 National Iron & Wire Co., Cleveland, O.
 Ohio Structural Iron Co., Sandusky, O.
 Pleuger & Henger Mfg. Co., St. Louis, Mo.
 Rock River Mfg. Co., Dixon, Ill.
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
 Sessions Foundry Co., Bristol, Ct.
 Standard Car & Foundry Co., Pittsburgh, Pa.
 Stewart Iron Works Co., Cincinnati, O.
 B. F. Sturtevant Co., Boston, Mass.
 United States Cast Iron Pipe & Foundry Co., 71 Broadway, New York.
 Van Dorn Iron Works Co., Cleveland, O.
 Wagner Mfg. Co., Cedar Falls, Ia.
 Walker Foundry Co., Erie, Pa.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
 West Side Foundry Co., Troy, N. Y.
 Wheeling Mold & Foundry Co., Wheeling, W. Va.
 Winslow Bros. Co., 2515 W. Harrison St., Chicago, Ill.
 Wright Wire Co., Worcester, Mass.
- Ironing Boards, Tables—**
 (See Boards, Tables.)
- Irons, Balling—**
 Covert Mfg. Co., Troy, N. Y.
- Irons, Bar—**
 Richards Mfg. Co., Aurora, Ill.
- Irons, Burnishing—**
 Dame, Stoddard & Co., Boston, Mass.
- Irons, Calking—**
 H. Mueller Mfg. Co., Decatur, Ill.
 W. & J. Tiebout, 118 Chambers St., N. Y.
 L. & I. J. White Co., Buffalo, N. Y.
- Irons, Canopy Top, Carriage—**
 E. D. Clapp Mfg. Co., Auburn, N. Y.
- Irons, Corner and Brace—**
 Griffin Mfg. Co., Erie, Pa.
 National Mfg. Co., Sterling, Ill.
 Richards Mfg. Co., Aurora, Ill.
 Stanley Works, New Britain, Ct.
 W. & J. Tiebout, 118 Chambers St., N. Y.
- Irons, Curling—**
 Arcade Mfg. Co., Freeport, Ill.
- Irons, Gear, Carriage and Wagon—**
 E. D. Clapp Mfg. Co., Auburn, N. Y.
 Kilborn & Bishop Co., New Haven, Ct.
- Irons, Golf—**
 Kilborn & Bishop Co., New Haven, Ct.
 J. H. Williams & Co., Brooklyn, N. Y.
- Irons, Grappling—**
 W. & J. Tiebout, 118 Chambers St., N. Y.
- Irons, Hay Rack—**
 Loudon Machinery Co., Fairfield, Ia.
- Irons, Laundry, Tailor, &c., Electric—**
 General Electric Co., Schenectady, N. Y.
- Irons, Measuring, Ice—**
 (See Ice Harvesting Tools.)
- Irons, Pinching—**
 Arcade Mfg. Co., Freeport, Ill.
- Irons, Pinking—**
 Dame, Stoddard & Co., Boston, Mass.
- Irons, Plane—**
 Buck Bros., Millbury, Mass.
 Charles Buck Edge Tool Co., Millbury, Mass.
 Chapin-Stephens Co., Pine Meadow, Ct.
 Stanley Rule & Level Co., New Britain, Ct.
 L. & I. J. White Co., Buffalo, N. Y.
- Irons, Porch Post—**
 (See Supports, Porch.)
- Irons, Rub—**
 Pleuger & Henger Mfg. Co., St. Louis, Mo.
- Irons, Sad, Gasoline—**
 Imperial Brass Mfg. Co., 241 S. Jefferson St., Chicago, Ill.
- Irons, Sad, Laundry, &c.—**
 Enterprise Mfg. Co., Philadelphia, Pa.
 Pleuger & Henger Mfg. Co., St. Louis.
 Reading Hardware Co., Reading, Pa.
 Schreiber & Conchar Mfg. Co., Dubuque, Ia.
 A. C. Williams, Ravenna, O.
 Wrightsville Hardware Co., Wrightsville, Pa.
 (See also Irons, Laundry, Tailor, &c., Electric.)
- Irons, Sad, Laundry, Asbestos—**
 Schreiber & Conchar Mfg. Co., Dubuque, Ia.
- Irons, Sash Cord and Sash Weight—**
 H. B. Ives Co., New Haven, Ct.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Pullman Mfg. Co., Rochester, N. Y.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43 Chambers St., New York.
 Tower & Lyon Co., 95 Chambers St., New York.
 Union Mfg. Co., New Britain, Ct.
 Wire Goods Co., Worcester, Mass.
- Irons, Sash, Ribbon, Chain and Wire—**
 Caldwell Mfg. Co., Rochester, N. Y.
 Pullman Mfg. Co., Rochester, N. Y.

Irons, Soldering—
(See Coppers, Soldering.)

Irons, Tuyere—

Arcade Mfg. Co., Freeport, Ill.
Kinley Iron & Machine Co., Canton, Mass.

J. W. Paxson Co., Philadelphia, Pa.
Pleuger & Henger Mfg. Co., St. Louis, Mo.
Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Root Bros. Co., Plymouth, O.
Silver Mfg. Co., Salem, O.

Irons, Waile—

Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.

Reading Hardware Co., Reading, Pa.
Schreiber & Conchar Mfg. Co., Dubuque, Ia.

Irrigation Pumps—

(See Pumps, Irrigation.)

Ivory Rules—

(See Rules, Ivory.)

Jack Chain, Stones—

(See Chain, Stones.)

Jacket Pumps—

(See Pumps, Jacket.)

Jacks, Automobile—

Covert Mfg. Co., Troy, N. Y.

Jacks, Ball Bearing—

Smith & Hemenway Co., 108-110 Duane St., New York.

Jacks, Boot—

Columbia Grey Iron Co., Columbia, Pa.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.
Reading Hardware Co., Reading, Pa.
Root Bros. Co., Plymouth, O.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Louis Sacks, Newark, N. J.
Susquehanna Casting Co., Wrightsville, Pa.

Wrightsville Hardware Co., Wrightsville, Pa.

Jacks, Carriage and Wagon—

Arcade Mfg. Co., Freeport, Ill.
Bicycle Stepladder Co., 65 Randolph St., Chicago, Ill.

Boston & Lockport Block Co., Boston.
A. Buch's Sons Co., Elizabethtown, Pa.
Covert Mfg. Co., Troy, N. Y.

Cutaway Harrow Co., Higgenum, Ct.
Lane Bros. Co., Poughkeepsie, N. Y.
Millers Falls Co., 28 Warren St., N. Y.

J. E. Porter Co., Ottawa, Ill.
Richards Mfg. Co., Aurora, Ill.
Silver Mfg. Co., Salem, O.

R. W. Whitehurst Co., Norfolk, Va.

Jacks, Hydraulic—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Dienelt & Eisenhardt, 1308 Howard St., Philadelphia, Pa.

Richard Dudgeon, 24 Columbia St., N. Y.
Fairbanks Co., 416 Broome St., New York.
A. L. Henderer's Sons, Wilmington, Del.

Watson-Stillman Co., 46 Dey St., New York.

Jacks, Log—

Buhl Malleable Co., Detroit, Mich.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Jacks, Machine—

Wicks Bros., Saginaw, Mich.
Jacks, Machine—
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Jacks, Planer—

Armstrong Bros. Tool Co., 617-621 Austin Ave., Chicago, Ill.

Jacks, Pneumatic—

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.

Jacks, Screw—

Cleveland City Forge & Iron Co., Cleveland, O.

Covert Mfg. Co., Troy, N. Y.
Fairbanks Co., 416 Broome St., New York.
Goulds Mfg. Co., Seneca Falls, N. Y.

Wm. G. Le Count, South Norwalk, Ct.
Millers Falls Co., 28 Warren St., N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Rock River Mfg. Co., Dixon, Ill.
L. S. Starrett Co., Athol, Mass.

Watson-Stillman Co., 46 Dey St., New York.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

Jacks, Timber—

(See Timber Dollies.)

Jaggers, Paste—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Jails, Jail Cells, &c.—

Adam's Steel & Wire Works, Joliet, Ill.
Glen Mfg. Co., Ellwood City, Pa.

National Iron & Wire Co., Cleveland, O.
Ohio Structural Iron Co., Sandusky, O.
Stewart Iron Works Co., Cincinnati, O.

Van Dorn Iron Works Co., Cleveland, O.

Jamb Hooks—

(See Hooks, Jamb.)

Japanning—

Avery Stamping Co., Cleveland, O.
J. W. Clark, Albany, N. Y.

Forest City Foundry & Mfg. Co., Cleveland, O.

Palmer & De Mooy Foundry Co., Cleveland, O.

Parker Wire Goods Co., Worcester, Mass.
Pleuger & Henger Mfg. Co., St. Louis, Mo.
Schreiber & Conchar Mfg. Co., Dubuque, Ia.

L. S. Spencer's Sons, Guilford, Ct.

Taylor & Boggis Foundry Co., Cleveland, O.

Japans—

(See Varnishes, Japans, &c.)

Jar Molds—

(See Molds, Jar and Bottle.)

Jaw Caps, Vice—

(See Vice Jaw Caps.)

Jaw Clutches—

(See Clutches, Jaw.)

Jaws, Face Plate—

Oneida National Chuck Co., Oneida, N. Y.
Skinner Chuck Co., New Britain, Ct.
Union Mfg. Co., New Britain, Ct.

Jaws, Vice—

Prentiss Vice Co., 44 Barclay St., N. Y.

Jewel Caskets, Silver Plated—

International Silver Co., 9-13 Maiden Lane, New York.

Jewelers' Rolls, Saws, Tools—

(See Rolls, Saws, Tools.)

Jigs, Drill—

Sigourney Tool Co., Hartford, Ct.

- Jobbers, Bicycle Material and Sundries—**
John S. Leng's Son & Co., 33 Murray St., New York.
- Jobbers, Hardware, Cutlery, Tools, Sporting Goods, &c.—**
C. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.
Burditt & Williams Co., Boston, Mass.
Butler Bros., Randolph Bridge, Chicago.
Chicago House Wrecking Co., W. 35th & Iron Sts., Chicago, Ill.
Dane, Stoddard & Co., Boston, Mass.
Fairbanks Co., 416 Broome St., New York.
Alfred Field & Co., 93 Chambers St., New York.
Kirtland Bros. & Co., 90 Chambers St., New York.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
J. B. Shannon & Sons, 816 Chestnut St., Philadelphia, Pa.
Simmons Hardware Co., St. Louis, Mo.
Star Expansion Bolt Co., 147-149 Cedar St., New York.
Supplee Hardware Co., Philadelphia, Pa.
Charles Welland, 147-149 Chambers St., New York.
- Jobbers, Leather—**
G. B. Weiss & Son, 229 E. 42d St., New York.
- Jobbers, Shoe Findings—**
G. B. Weiss & Son, 229 E. 42d St., New York.
- Joint Couplings—**
(See Couplings, Joint.)
- Joint Runner, Asbestos Lead—**
Vanderman Plumbing & Heating Co., Willimantic, Ct.
- Jointer Gauges—**
(See Gauges, Jointer.)
- Jointers, Saw—**
Pike Mfg. Co., Pike, N. H.
- Joints, Expansion Pipe—**
Alberger Condenser Co., 95 Liberty St., New York.
Lunkenheimer Co., Cincinnati, O.
Wm. Powell Co., Cincinnati, O.
- Joints, Rail—**
Chisholm & Moore Mfg. Co., Cleveland.
Goldschmidt, Thermit Co., 41 Wall St., New York.
Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
- Joints, Step Ladder—**
Stanley Works, New Britain, Ct.
- Joints, Stump—**
E. D. Clapp Mfg. Co., Auburn, N. Y.
- Joints, Universal—**
Baush Machine Tool Co., Springfield, Mass.
Boston Gear Works, Boston, Mass.
Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.
Gen Mfg. Co., Pittsburgh, Pa.
Gould & Eberhardt, Newark, N. J.
Poole Engineering & Machine Co., Baltimore, Md.
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
- Joint Hangers—**
(See Hangers and Stirrups.)
- Juice Extractors—**
(See Extractors, Juice.)
- Kaolin—**
Ostrander Fire Brick Co., Troy, N. Y.
J. W. Paxson Co., Philadelphia, Pa.
M. D. Valentine & Bro. Co., Woodbridge, N. J.
- Keelers—**
Richmond Cedar Works, Richmond, Va.
- Keel Machinery and Tools—**
Peter Gerlach Co., Cleveland, O.
- Kegs, Factory—**
W. J. Clark Co., Salem, O.
Cleveland Wire Spring Co., Cleveland, O.
- Kegs, Nail, Bolt, Nut, &c.—**
W. J. Clark Co., Salem, O.
- Kegs, Oak—**
Richmond Cedar Works, Richmond, Va.
- Kerosene Burners**
(See Burners, Kerosene.)
- Kettles, Brass—**
Republic Metalware Co., Buffalo, N. Y.
Waterbury Brass Co., Waterbury, Ct.
- Kettles, Five o'Clock Tea—**
Goodwin & Kintz Co., Winsted, Ct.
- New York Stamping Co., Brooklyn, N. Y.**
- Kettles For Melting Lead—**
Poole Engineering & Machine Co., Baltimore, Md.
- Kettles, Maslin—**
Avery Stamping Co., Cleveland, O.
- Kettles, Mixing—**
E. B. Badger & Sons Co., Boston, Mass.
- Kettles, Pitch—**
F. H. Evans, Brooklyn, N. Y.
- Kettles, Plate Steel—**
W. J. Clark Co., Salem, O.
- Kettles, Roofing—**
F. H. Evans, Brooklyn, N. Y.
- Kettles, Semi-Steel—**
Francis & Nygren Foundry Co., 1201 Fillmore St., Chicago, Ill.
- Kettles, Soda—**
Brown & Sharpe Mfg. Co., Providence, R. I.
Francis & Nygren Foundry Co., 1201 Fillmore St., Chicago, Ill.
Hess-Snyder Co., Massillon, O.
Pennsylvania Engineering Works, New Castle, Pa.
- Kettles, Steam Jacket—**
E. B. Badger & Sons Co., Boston, Mass.
E. Keeler Co., Williamsport, Pa.
- Kettles, Sugar, Cast Iron—**
A. Buch's Sons Co., Elizabethtown, Pa.
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
J. B. & J. M. Cornell, 26th St. and 11th Ave., New York.
- Kettles, Tar—**
Thomas Carlin's Sons, Allegheny, Pa.
F. H. Evans, Brooklyn, N. Y.
E. Keeler Co., Williamsport, Pa.
Ritter-Conley Mfg. Co., Pittsburgh, Pa.
- Kettles, Ten, Range, Stove—**
Avery Stamping Co., Cleveland, O.
Cleveland Stamping & Tool Co., Cleveland, O.
- Republic Metalware Co., Buffalo, N. Y.**
- Key Chains, Checks, &c.—**
(See Chains, Checks, &c.)
- Key Seaters—**
B. F. Barnes Co., Rockford, Ill.
- Key Way Machines—**
John T. Burr & Sons, Brooklyn, N. Y.
W. P. Davis Machine Co., Rochester, N. Y.

Hill-Standard Mfg. Co., Anderson, Ind.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Morton Mfg. Co., Muskegon Heights, Mich.
Niles-Bement-Pond Co., 111 Broadway, New York.
Novelty Iron Works, Dubuque, Ia.

MERCHANTS.

J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
Frevet Machinery Co., 18 Dey St., New York.
Hill, Clarke & Co., Boston, Mass.
McClerman & Orr, Monadnock Block, Chicago, Ill.
Marshall & Huachart Machinery Co., 62-64 S. Canal St., Chicago, Ill.
Metch & Merryweather Machinery Co., Cleveland, O.
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
Thornton Machinery Co., Providence, R. I.
Vandyck, Churchill Co., 3 Dey St., N. Y.
C. C. Wormer Machinery Co., Detroit, Mich.

Keyhole Saws—

(See Saws, Compass or Keyhole.)

Keys and Cutters, Spring—

(See Cutters and Keys, Spring.)

Keys and Key Blanks—

Eagle Lock Co., Terryville, Ct.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Keys, Flat Spring—

M. S. Brooks & Sons, Chester, Ct.
Climax Tag Co., Dayton, O.
Cobb & Drew, Plymouth, Mass.
Hindley Mfg. Co., Valley Falls, R. I.
E. Jencks Mfg. Co., Pawtucket, R. I.
Standard Tool Co., Cleveland, O.
W. & S. Mfg. Co., Worcester, Mass.
Whitman & Barnes Mfg. Co., Chicago, Ill.
Wire Goods Co., Worcester, Mass.

Keys, Machine—

Billings & Spencer Co., Hartford, Ct.
Morton Mfg. Co., Muskegon Heights, Mich.
Standard Gauge Steel Co., Beaver Falls, Pa.

Keys, Riveted, Machine—

Climax Tag Co., Dayton, O.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Hindley Mfg. Co., Valley Falls, R. I.
F. P. Smith & Co., Sharon Hill, Pa.
Standard Tool Co., Cleveland, O.
Whitman & Barnes Mfg. Co., Chicago, Ill.

Keys, Shapes for—

Finished Steel Co., Youngstown, O.
Kidd Bros. & Burgher Steel Wire Co., McKees Rocks, Pa.

Kick Plates—

(See Plates, Push, Pull, Kick.)

Killers, Fly—

Parker Wire Goods Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.

Kilns, Cement—

American Furnace & Machine Co., Pittsburgh, Pa.
S. Freeman & Sons Mfg. Co., Racine, Wis.

Kilns, Dry—

American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.

Humphrey Machine Co., Keene, N. H.
B. J. Sturtevant Co., Boston, Mass.

Kilns, Lime—

Race-Conley Mfg. Co., Pittsburgh, Pa.

King Bolts—

(See Bolts, King.)

Kitchen Articles, Wire (Egg

Boilers, Vegetable Boil-

ers, Chain Pot Cleaners,

Bread and Cake Coolers,

Grid Drainers, Kitchen

Boxes, Vegetable Lifters,

Vegetable Mashers, Skim-

mers, Strainers, Toasters,

Patent Fryers, Berry

Washers, Culinary Bas-

kets.

Cleveland Stamping & Tool Co., Cleveland, O.

Edwards, Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Kilbourne Mfg. Co., Troy, N. Y.

Parker Wire Goods Co., Worcester, Mass.

Spencer Wire Goods Co., Worcester, Mass.

Wickwire Brass Co., N. Y.

Wire Goods Co., Worcester, Mass.

Kitchen Forks, Knives—

(See Forks, Knives.)

Kitchen Saws—

(See Saws, Butcher and Kitchen.)

Kits, Wooden, Pickle—

Richmond Cedar Works, Richmond, Va.

Knees, Sample Case—

Eagle Lock Co., Terryville, Ct.

Knife Sharpeners—

(See Sharpeners, Knife.)

Knives and Forks, Carving—

American Cutlery Co., Chicago, Ill.

John Chatillon & Sons, 85 Cliff St., N. Y.

Alfred Field & Co., 93 Chambers St., New York.

Goodell Co., Antrim, N. H.

Landers, Frary & Clark, New Britain, Ct.

Knives, Angle—

Simonds Mfg. Co., Pittsburg, Mass.

Knives, Apple, Trimming—

Goodell Co., Antrim, N. H.

Landers, Frary & Clark, New Britain, Ct.

Knives, Asparagus—

Goodell Co., Antrim, N. H.

Knives, Banana—

Goodell Co., Antrim, N. H.

Knives, Beet—

American Fork & Hoe Co., Cleveland, O.

E. C. Atkins & Co., Indianapolis, Ind.

Geo. H. Bishop & Co., Cincinnati, O.

Henry Disston & Sons, Philadelphia, Pa.

Landers, Frary & Clark, New Britain, Ct.

Knives, Belt—

American Tool & Machine Co., Boston.

Knives, Broom—

Goodell Co., Antrim, N. H.

Knives, Budding and Graft-

ing—

Alfred Field & Co., 93 Chambers St., N. Y.

Knives, Butcher, Slicing.

Bread, Shoe, &c.—

American Cutlery Co., Chicago, Ill.

John Chatillon & Sons, 85 Cliff St., N. Y.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Dame, Stoddard & Co., Boston, Mass.

Alfred Field & Co., 93 Chambers St., New York.

Chas. Forchumer & Sons, 224 E. 14th St., New York.

Goodell Co., Antrim, N. H.

C. J. Kimball Co., Bennington, N. H.
Landers, Frary & Clark, New Britain, Ct.
National Cutlery Co., Detroit, Mich.
New England Specialty Co., North Easton, Mass.

L. D. Parkhurst, Danielson, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.

Tuck Mfg. Co., Brockton, Mass.
Wilkinson Shear & Cutlery Co., Reading, Pa.

Knives, Butter—
Chas. Forschner & Sons, 206 E. 19th St., New York.

Goodell Co., Antrim, N. H.
Landers, Frary & Clark, New Britain, Ct.

Knives, Cake—
Goodell Co., Antrim, N. H.

Knives, Can—
E. C. Atkins & Co., Indianapolis, Ind.
Geo. H. Bishop & Co., Cincinnati, O.
Henry Disston & Sons, Philadelphia, Pa.
National Saw Co., Newark, N. J.
Simonds Mfg. Co., Fitchburg, Mass.

Knives, Cheese—
Chas. Forschner & Sons, 206 E. 19th St., New York.

Goodell Co., Antrim, N. H.
Landers, Frary & Clark, New Britain, Ct.

Knives, Cheese, Self Gauging—
Enterprise Mfg. Co., Philadelphia, Pa.

Knives, Cigar—
American Cutlery Co., Chicago, Ill.

Dame, Stoddard & Co., Boston, Mass.
Goodell Co., Antrim, N. H.

Landers, Frary & Clark, New Britain, Ct.

Knives, Combination, and Screw Driver—
Billings & Spencer Co., Hartford, Ct.

Knives, Corn—
American Fork & Hoe Co., Cleveland, O.

E. C. Atkins & Co., Indianapolis, Ind.
Geo. H. Bishop & Co., Cincinnati, O.

Henry Disston & Sons, Philadelphia, Pa.
Goodell Co., Antrim, N. H.

John H. Graham & Co., 113 Chambers St., New York.

Landers, Frary & Clark, New Britain, Ct.
National Saw Co., Newark, N. J.

Knives, Crumb—
American Cutlery Co., Chicago, Ill.

Knives, Drawing—
Charles Buck Edge Tool Co., Millbury, Mass.

Buck Bros., Millbury, Mass.
Henry Disston & Sons, Philadelphia, Pa.

C. E. Jennings & Co., 42 Murray St., New York.

C. J. Kimball Co., Bennington, N. H.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Tower & Lyon Co., 95 Chambers St., New York.

L. & I. J. White Co., Buffalo, N. Y.
A. J. Wilkinson & Co., Boston, Mass.

Knives, Electricians—
Smith & Hemenway Co., 108-110 Duane St., New York.

Knives, Farrier—
Alfred Field & Co., 93 Chambers St., New York.

Heller Bros. Co., Newark, N. J.
Wiebusch & Hilger, 9-15 Murray St., N. Y.

Knives, Fish—
Landers, Frary & Clark, New Britain, Ct.

Knives, Fruit—
Goodell Co., Antrim, N. H.
Landers, Frary & Clark, New Britain, Ct.
Wilkinson Shear & Cutlery Co., Reading, Pa.

Knives, Glass Handle—
Goodell Co., Antrim, N. H.

Knives, Glaziers—
(See Knives, Putty.)

Knives, Hacking—
Landers, Frary & Clark, New Britain, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.

Knives, Hay and Straw—
Iwan Bros., Streator, Ill.

Ney Mfg. Co., Canton, O.
Wiebusch & Hilger, 9-15 Murray St., N. Y.

Knives, Hedge—
Geo. H. Bishop & Co., Cincinnati, O.

Henry Disston & Sons, Philadelphia, Pa.
Knives, Horsehoers' Toe—
Vaughan & Bushnell Mfg. Co., Chicago.

Knives, Hunting—
Alfred Field & Co., 93 Chambers St., New York.

Goodell Co., Antrim, N. H.
Landers, Frary & Clark, New Britain, Ct.

Smith & Hemenway Co., 108-110 Duane St., New York.

Wilkinson Shear & Cutlery Co., Reading, Pa.

Knives, Kitchen—
John Chatillon & Sons, 85 Cliff St., N. Y.

Cronk & Carrier Mfg. Co., Elmira, N. Y.
Alfred Field & Co., 93 Chambers St., New York.

Goodell Co., Antrim, N. H.
Handy Things Co., Ludington, Mich.

Landers, Frary & Clark, New Britain, Ct.
National Cutlery Co., Detroit, Mich.

New England Specialty Co., North Easton, Mass.

L. D. Parkhurst, Danielson, Ct.
Pritchard-Strong Co., Rochester, N. Y.

Smith & Hemenway Co., 108-110 Duane St., New York.

Wilkinson Shear & Cutlery Co., Reading, Pa.

Knives, Lawn Mower—
Harrow Spring Co., Kalamazoo, Mich.

Knives, Lemon—
Alfred Field & Co., 93 Chambers St., New York.

Goodell Co., Antrim, N. H.
Landers, Frary & Clark, New Britain, Ct.

Knives, Machine (Planer, Paper Cutting, Leather Splitting, Chair Bottom, Washboard, Stave, Miter, &c.)—
E. C. Atkins & Co., Indianapolis, Ind.

John Chatillon & Sons, 85 Cliff St., N. Y.
Cres Wrench Co., Worcester, Mass.

Henry Disston & Sons, Philadelphia, Pa.
Fox Machine Co., Grand Rapids, Mich.

Heppenstall Forge & Knife Co., Pittsburgh, Pa.

John Loyd Co., 558 Water St., New York.
National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.
L. & I. J. White Co., Buffalo, N. Y.

Knives, Metal Shear—
(See Blades, Metal Shear.)

Knives, Mining—
Arcade Mfg. Co., Freeport, Ill.

Geo. H. Bishop & Co., Cincinnati, O.
Cronk & Carrier Mfg. Co., Elmira, N. Y.

- John H. Graham & Co., 113 Chambers St., New York.
- Kilbourne Mfg. Co.**, Troy, N. Y.
- Landers, Frary & Clark**, New Britain, Ct.
- National Saw Co.**, Newark, N. J.
- New England Specialty Co.**, North Easton, Mass.
- Potter Mfg. Co.**, Geneva, O.
- Republic Metalware Co.**, Buff'lo, N. Y.
- Smith & Hemenway Co.**, 108-110 Duane St., New York.
- Knives, Mixing—**
Landers, Frary & Clark, New Britain, Ct.
- Knives, Mower and Reaper—**
Whitman & Barnes Mfg. Co., Chicago.
- Knives, Oyster and Clam—**
John Chatillon & Sons, 55 Cliff St., N. Y.
- Dame, Stoddard & Co.**, Boston, Mass.
- Alfred Field & Co.**, 93 Chambers St., New York.
- C. J. Kimball Co.**, Bennington, N. H.
- Landers, Frary & Clark**, New Britain, Ct.
- L. D. Parkhurst, Danielson, Ct.**
- Tuck Mfg. Co.**, Brockton, Mass.
- Vaughan & Bushnell Mfg. Co.**, Chicago.
- Knives, Paper Cutter—**
Billings & Spencer Co., Hartford, Ct.
- John Loyd Co.**, 558-562 Water St., New York.
- Knives, Paper Hangers'—**
Goodell Co., Antrim, N. H.
- Landers, Frary & Clark**, New Britain, Ct.
- Smith & Hemenway Co.**, 108-110 Duane St., New York.
- Webster & Perks Tool Co.**, Springfield, O.
- Knives, Paper, Oil Cloth, Rubber, Cork, Leather, Cloth, &c.—**
American Cutlery Co., Chicago, Ill.
- Billings & Spencer Co.**, Hartford, Ct.
- Dame, Stoddard & Co.**, Boston, Mass.
- Henry Diston & Sons**, Philadelphia, Pa.
- C. J. Kimball Co.**, Bennington, N. H.
- Landers, Frary & Clark**, New Britain, Ct.
- John Loyd Co.**, 558-562 Water St., New York.
- L. D. Parkhurst, Danielson, Ct.**
- Smith & Hemenway Co.**, 108-110 Duane St., New York.
- Tuck Mfg. Co.**, Brockton, Mass.
- Knives, Pie—**
Landers, Frary & Clark, New Britain, Ct.
- Knives, Pocket Lever Opening—**
U. J. Utery Co., 9 Warren St., New York.
- Knives, Pocket Tool Kit—**
Adolph Kastor & Bros., 109 Duane St., New York.
- U. J. Utery Co.**, 9 Warren St., New York.
- Knives, Press Button—**
Wiebisch & Hilger, 9-15 Murray St., N. Y.
- Knives, Pruning—**
Alfred Field & Co., 93 Chambers St., New York.
- Knives, Putty—**
American Cutlery Co., Chicago, Ill.
- Bridgeport Hardware Mfg. Co.**, Bridgeport, Ct.
- Cronk & Carrier Mfg. Co.**, Elmira, N. Y.
- Goodell Co.**, Antrim, N. H.
- C. J. Kimball Co.**, Bennington, N. H.
- Landers, Frary & Clark**, New Britain, Ct.
- National Cutlery Co.**, Detroit, Mich.
- L. D. Parkhurst, Danielson, Ct.**
- Smith & Hemenway Co.**, 108-110 Duane St., New York.
- Wilkinson Shear & Cutlery Co.**, Reading, Pa.
- Knives, Rotary Slitting—**
Blake & Johnson, Waterbury, Ct.
- Niagara Machine & Tool Works**, Buffalo, N. Y.
- Simonds Mfg. Co.**, Fitchburg, Mass.
- Knives, Saw—**
E. C. Atkins & Co., Indianapolis, Ind.
- Geo. H. Bishop & Co.**, Cincinnati, O.
- Henry Diston & Sons**, Philadelphia, Pa.
- National Saw Co.**, Newark, N. J.
- Simonds Mfg. Co.**, Fitchburg, Mass.
- Knives, Serrated—**
National Cutlery Co., Lehigh Ave., American and Third Sts., Philadelphia.
- Knives, Silver and Silver Plated—**
Goodell Co., Antrim, N. H.
- Oneida Community, Ltd.**, Niagara Falls, N. Y.
- Knives, Sportsmen's—**
Billings & Spencer Co., Hartford, Ct.
- Alfred Field & Co.**, 93 Chambers St., New York.
- Goodell Co.**, Antrim, N. H.
- Smith & Hemenway Co.**, 108-110 Duane St., New York.
- Knives, Strike Brick—**
E. C. Atkins & Co., Indianapolis, Ind.
- Knives, Surgical—**
F. A. Reichardt & Co., 391 Broadway, New York.
- Knives, Tobacco—**
Landers, Frary & Clark, New Britain, Ct.
- Simonds Mfg. Co.**, Fitchburg, Mass.
- Tuck Mfg. Co.**, Brockton, Mass.
- L. & I. J. White Co.**, Buffalo, N. Y.
- Knives, Tomato—**
Goodell Co., Antrim, N. H.
- Knives, Wood Carvers'—**
Smith & Hemenway Co., 108-110 Duane St., New York.
- Knives, Wood Pulp—**
Simonds Mfg. Co., Fitchburg, Mass.
- Knob Screws—**
(Screws, Knob.)
- Knobs, Base and Floor—**
Ashtabula Mfg. Co., Ashtabula, O.
- Jos. Bardsley**, 147-151 Baxter St., N. Y.
- E. B. Estes & Sons**, 45-47 John St., New York.
- W. B. Hartigan**, Collinsville, Ct.
- Union Hardware Co.**, Torrington, Ct.
- Knobs, Carriage—**
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Walter W. Woodruff & Sons Co.**, Mt. Carmel, Ct.
- Knobs, Door—**
Jos. Bardsley, 147-151 Baxter St., N. Y.
- E. B. Estes & Sons**, 45-47 John St., N. Y.
- Peck, Stow & Wilcox Co.**, 27 Murray St., New York.
- Reading Hardware Co.**, Reading, Pa.
- Russell & Erwin Mfg. Co.**, 43-47 Chambers St., New York.
- Taylor & Boggs Foundry Co.**, Cleveland.
- Yale & Towne Mfg. Co.**, 9-15 Murray St., New York.
- Knobs, Drawer and Shutter—**
American Ring Co., Waterbury, Ct.
- Jos. Bardsley**, 147-151 Baxter St., N. Y.

- F. B. Estes & Sons**, 45-47 John St., New York.
- H. A. Matthews Mfg. Co.**, Seymour, Ct.
- Peck, Stow & Wilcox Co.**, 27 Murray St., New York.
- Reading Hardware Co.**, Reading, Pa.
- Russell & Erwin Mfg. Co.**, 43-47 Chambers St., New York.
- Yale & Towne Mfg. Co.**, 9-15 Murray St., New York.
- Knobs, Enameled—**
Baker, McMillen Co., Akron, O.
- E. B. Estes & Sons**, 45-47 John St., New York.
- Handy Things Co.**, Ludington, Mich.
- Pritchard-Strong Co.**, Rochester, N. Y.
- Knobs, Picture—**
Baker, McMillen Co., Akron, O.
- Knobs, Plane—**
E. B. Estes & Sons, 45-47 John St., New York.
- Knockers, Door—**
Reading Hardware Co., Reading, Pa.
- Russell & Erwin Mfg. Co.**, 43-47 Chambers St., New York.
- Yale & Towne Mfg. Co.**, 9-15 Murray St., New York.
- Knuckles, Car Coupler—**
Chester Steel Casting Co., 407 Sansom St., Philadelphia, Pa.
- Quincy, Manchester, Sargent Co.**, Old Colony Bldg., Chicago, Ill.
- Knurling Tools—**
 (See Tools, Knurling.)
- Knurls and Knurled Nuts—**
 (See Nuts, Knurled.)
- Labeling Machines, Bottle—**
Chas. E. Leffler & Co., Brooklyn, N. Y.
- Labels, Brass—**
George M. Ness, Jr., 61 Fulton St., N. Y.
- New York Stencil Works**, 100 Nassau St., New York.
- Arthur T. Rutter & Co.**, 256 Broadway, New York.
- Schwerdtle Stamp Co.**, Bridgeport, Ct.
- Labels, Plant and Tree—**
Boston & Lockport Block Co., Boston.
- E. B. Estes & Sons**, 45-47 John St., New York.
- Laboratory Outfits—**
Eimer & Amend, 205 Third Ave., N. Y.
- Lacing, Leather, Rawhide, Steel—**
 (See Belt Lacing, Leather, Rawhide, Steel, and Hooks, Belt.)
- Lacquers—**
Hanson & Van Winkle Co., Newark, N. J.
- Zucker & Levett & Loeb Co.**, 526-530 West 25th St., New York.
- Ladders, Rolling Store—**
Allish Mfg. Co., 122-124 S. Green St., Chicago, Ill.
- Bicycle Step Ladder Co.**, 65 Randolph St., Chicago, Ill.
- Ebbing Mfg. Co.**, St. Louis, Mo.
- Lane Bros. Co.**, Poughkeepsie, N. Y.
- McCabe Hanger Mfg. Co.**, 425-427 W. 25th St., New York.
- F. E. Myers & Bro.**, Ashland, O.
- Richards Mfg. Co.**, Aurora, Ill.
- J. D. Warren Mfg. Co.**, Chicago, Ill.
- Ladders, Rope—**
A. S. Morss Co., Boston, Mass.
- Ladders, Sectional, Ex-tension and Single—**
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
- Udell Works**, Indianapolis, Ind.
- Ladders, Steel—**
Ludlow-Saylor Wire Co., St. Louis, Mo.
- F. E. Myers & Bro.**, Ashland, O.
- Ladders, Step—**
Chandeller & Art Brass Works, Richmond, Ind.
- Ebbing Mfg. Co.**, St. Louis, Mo.
- Hill Dryer Co.**, Worcester, Mass.
- Udell Works**, Indianapolis, Ind.
- R. W. Whitehurst Co.**, Norfolk, Va.
- Ladle Stoppers—**
 (See Stoppers, Ladle.)
- Ladle, Babbitt—**
Byram & Co., Inc., Detroit, Mich.
- S. Obermayer Co.**, Cincinnati, O.
- Ladles, Foundry—**
Byram & Co., Inc., Detroit, Mich.
- Thos. Carlin's Sons**, Allegheny, Pa.
- Meehan Boiler & Construction Co.**, Lowellville, O.
- Northern Engineering Works**, Detroit, Mich.
- S. Obermayer Co.**, Cincinnati, O.
- J. W. Paxson Co.**, Philadelphia, Pa.
- Pennsylvania Engineering Works**, New Castle, Pa.
- Poole Engineering & Machine Co.**, Baltimore, Md.
- Ritter-Conley Mfg. Co.**, Pittsburgh, Pa.
- J. D. Smith Foundry Supply Co.**, Cleveland, O.
- B. F. Sturtevant Co.**, Boston, Mass.
- Whiting Foundry Equipment Co.**, Har-vez, Ill.
- Ladles, Melting—**
W. J. Clark Co., Salem, O.
- Hollands Mfg. Co.**, Erie, Pa.
- Lalance & Grosjean Mfg. Co.**, 19 Cliff St., New York.
- Meehan Boiler & Construction Co.**, Lowellville, O.
- H. Mueller Mfg. Co.**, Decatur, Ill.
- S. Obermayer Co.**, Cincinnati, O.
- J. W. Paxson Co.**, Philadelphia, Pa.
- Peck, Stow & Wilcox Co.**, 27 Murray St., New York.
- Pennsylvania Engineering Works**, New Castle, Pa.
- Pleuger & Henger Mfg. Co.**, St. Louis, Mo.
- Reading Hardware Co.**, Reading, Pa.
- Ritter-Conley Mfg. Co.**, Pittsburgh, Pa.
- Ladles, Silver and Silver Plated—**
Oneida Community, Ltd., Niagara Falls, N. Y.
- Lag and Coach Screws—**
 (See Screws, Coach and Lag.)
- Lagging, Asbestos—**
H. W. Johns-Manville Co., 100 William St., New York.
- Lamp Attachments, Electric, for Gas Fixtures—**
 (See Electric Light Fixtures.)
- Lamp Brackets, Chimney Heaters, &c.—**
 (See Brackets, Heaters, &c.)
- Lamp Cord—**
 (See Wires, Electrical.)
- Lamp Hooks—**
 (See Hooks, Chandeller or Lamp.)
- Lampblack—**
Samuel Cabot, Boston, Mass.
- Lamps, Acetylene, Bicycle, Carriage and Automobile—**
Bridgeport Brass Co., 253 E'way, N. Y.
- Lamps, Arc—**
General Electric Co., Schenectady, N. Y.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
Lamps, Automobile, Oil—
 John H. Graham & Co., 113 Chambers St., New York.
Lamps, Bicycle—
 Bridgeport Brass Co., 253 B'way, N. Y.
 Plume & Atwood Mfg. Co., Waterbury, Ct.
 Scovill Mfg. Co., Waterbury, Ct.
Lamps, Enclosed Arc—
 General Electric Co., Schenectady, N. Y.
 Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
Lamps, Five O'Clock Tea—
 New York Stamping Co., Brooklyn, N. Y.
Lamps, Gas Arc—
 General Gas Light Co., Kalamazoo, Mich.
Lamps, Gasoline Gas—
 Berger Mfg. Co., Canton, O.
 Schneider & Trenkamp Co., Div. American Stove Co., Cleveland, O.
 Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.
Lamps, Hand—
 Bridgeport Brass Co., 253 B'way, N. Y.
 Gem Mfg. Co., Pittsburgh, Pa.
 Tower & Lyon Co., 95 Chambers St., N. Y.
Lamps, Incandescent—
 General Electric Co., Schenectady, N. Y.
 W. R. Ostrander & Co., 22 Dey St., N. Y.
 Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
Lamps, Iron, Malleable—
 Hammer & Co., Branford, Ct.
Lamps, Laboratory—
 Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.
Lamps, Miners'—
 American Tube & Stamping Co., Bridgeport, Ct.
 Keuffel & Esser Co., 127 Fulton St., New York.
 Republic Metalware Co., Buffalo, N. Y.
Lamps, Miners' Safety—
 Howard & Morse, 45 Fulton St., N. Y.
Lamps, Shoemakers' Kit—
 Louis Sacks, Newark, N. J.
Lamps, Shop and Foundry—
 Forest City Foundry & Mfg. Co., Cleveland, O.
 S. Obermayer Co., Cincinnati, O.
 Osborn Mfg. Co., Cleveland, O.
 J. W. Paxson Co., Philadelphia, Pa.
 J. D. Smith Foundry Supply Co., Cleveland, O.
 Schneider & Trenkamp Co., Div. American Stove Co., Cleveland, O.
 Taylor & Boggis Foundry Co., Cleveland, O.
Lamps, Steel, Yard, Mill, &c.—
 American Tube & Stamping Co., Bridgeport, Ct.
 Schneider & Trenkamp Co., Div. American Stove Co., Cleveland, O.
Lamps, Street—
 Berger Mfg. Co., Canton, O.
 Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.
Lamps, Table, Banquet, Banquet, Piano, &c.—
 Bridgeport Brass Co., 253 B'way, N. Y.
 Charles Parker Co., Meriden, Ct.
 Plume & Atwood Mfg. Co., Waterbury, Ct.
 Scovill Mfg. Co., Waterbury, Ct.

Lamps, Vestibule, Porte-Cochere, &c.—
 Glen Mfg. Co., Milwood City, Pa.
Lanterns, Kerosene, &c.—
 Berzer Mfg. Co., Canton, O.
 Bridgeport Brass Co., 253 B'way, N. Y.
 Delphos Can Co., Delphos, O.
 Pritchard-Strong Co., Rochester, N. Y.
Lanterns, Police—
 Tower & Lyon Co., 95 Chambers St., N. Y.
Lap Lasts—
 (See Lasts, Lap.)
Lapboards—
 Maine Mfg. Co., Nashua, N. H.
Lapping Machines—
 Blake & Johnson, Waterbury, Ct.
 Builders' Iron Foundry, Providence, R. I.
 Diamond Machine Co., Providence, R. I.
 Miles-Rement-Pond Co., 111 Broadway, New York.
 Northampton Emery Wheel Co., Leeds, Mass.
Lard Presses—
 (See Presses, Lard.)
Lariat and Picket Pins—
 Corvett Mfg. Co., Troy, N. Y.
Lariats—
 Broderick & Bascom Rope Co., St. Louis, A. Leschen & Sons Rope Co., St. Louis, Plymouth Cordage Co., North Plymouth, Mass.
 Samsom Cordage Works, Boston, Mass.
 Silver Lake Co., Boston, Mass.
Last Turning Machinery—
 (See Lathes, Last.)
Lasts and Stands, Shoe—
 Gray Iron Foundry Co., Reading, Pa.
 John C. Kupferle, St. Louis, Mo.
 Plunger & Henger Mfg. Co., St. Louis, Mo.
 Root Bros. Co., Plymouth, O.
 Louis Sacks, Newark, N. J.
Lasts, Lap—
 John C. Kupferle, St. Louis, Mo.
 Louis Sacks, Newark, N. J.
Latches and Locks, Sliding Door, Burn Door—
 (See Locks and Latches.)
Latches, Elevator Door—
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Latches, Gate—
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Plunger & Henger Mfg. Co., St. Louis, Mo.
 Reading Hardware Co., Reading, Pa.
 Susquehanna Castings Co., Wrightsville, Pa.
 Wrightville Hardware Co., Wrightsville, Pa.
 Yale & Towne Mfg. Co., 9-15 Murray St., New York.
Latches, Locks, &c.—
 (See Locks, Latches, &c.)
Latches, Night—
 Eagle Lock Co., Terryville, Ct.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
 Tower & Lyon Co., 95 Chambers St., New York.
 Yale & Towne Mfg. Co., 9-15 Murray St., New York.
Latches, Refrigerator—
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Taylor & Boggis Foundry Co., Cleveland, O.

Lathes, Thumb—
Chicago Spring Butt Co., Chicago, Ill.
Columbia Grey Iron Co., Columbia, Pa.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Ney Mfg. Co., Canton, O.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.
Reading Hardware Co., Reading, Pa.
Richards Mfg. Co., Aurora, Ill.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Wrightsville Hardware Co., Wrightsville, Pa.

Lathes, Water Closet—
Columbian Hardware Co., Cleveland, O.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Lath, Corrugated, Expanded Metal—
American Sheet & Tin Plate Co., Pittsburgh, Pa.

Berger Mfg. Co., Canton, O.
Buffalo Wire Works Co., Buffalo, N. Y.
Clinton Wire Cloth Co., Clinton, Mass.
Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Ludlow-Saylor Wire Co., St. Louis, Mo.
Merritt & Co., 1024-1028 Ridge Ave., Philadelphia, Pa.

Michigan Wire Cloth Co., Detroit, Mich.
New Jersey Wire Cloth Co., Trenton, N. J.

W. S. Tyler Co., Cleveland, O.
Wright Wire Co., Worcester, Mass.
Youngstown Iron & Steel Roofing Co., Youngstown, O.

Lath Machines, Sheet Metal—
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

George A. Ohl & Co., Newark, N. J.
Lath Machines, Wood—
Lane Mfg. Co., Montpelier, Vt.

Lath, Sheet Metal—
American Sheet & Tin Plate Co., Pittsburgh, Pa.

Brown Hoisting Machinery Co., Cleveland, O.

Edwards Mfg. Co., Cincinnati, O.
Youngstown Iron & Steel Roofing Co., Youngstown, O.

Lath, Yarn—
Broderick & Bascom Rope Co., St. Louis, A. Leschen & Sons Rope Co., St. Louis.

Lath Attachments, Bench—
O.K. Tool Holder Co., Shelton, Ct.
Stark Tool Co., Waltham, Mass.

Lath Chucks, Dogs, &c.—
See Chucks, Dogs, &c.

Lath Work, Special Turned—
New Machine Co., Danbury, Ct.

Lathes—
American Tool Works Co., Cincinnati, O.
Automatic Machine Co., Bridgeport, Ct.

B. F. Barnes Co., Rockford, Ill.
W. F. & J. Barnes Co., Rockford, Ill.
Blake & Johnson, Waterbury, Ct.

Bradford Machine Tool Co., Cincinnati, O.
Bullard Machine Tool Co., Bridgeport, Ct.
Champion Tool Works Co., Cincinnati, O.

W. F. Davis Machine Co., Rochester, N. Y.

Detrick & Harvey Machine Co., Baltimore, Md.

Dresser Machine Tool Co., Cincinnati, O.
Fairbanks Co., 416 Broadway, New York.
Fitchburg Machine Works, Fitchburg, Mass.

Garvin Machine Co., Spring and Varick Sts., New York.

Gleason Works, Rochester, N. Y.
Gould & Eberhardt, Newark, N. J.

Greaves, Klugman & Co., Cincinnati, O.
Harron & Finton, Springfield, Mass.

E. Harrington, Son & Co., Inc., Philadelphia, Pa.

I. H. Johnson, Jr. Co., Inc., 1422 Callowhill St., Philadelphia, Pa.

Jones & Lamson Machine Co., Springfield, Vt.

R. E. Kidder, Worcester, Mass.
R. K. Le Blond Machine Tool Co., Cincinnati, O.

Lodge & Shipley Machine Tool Co., Cincinnati, O.

J. J. McCabe, 14 Dey St., New York.
Manning, Maxwell & Moore, 85 Liberty St., New York.

E. J. Manville Machine Co., Waterbury, Ct.

Millers Falls Co., 28 Warren St., N. Y.
New Haven Mfg. Co., New Haven, Ct.

Niles-Bement-Pond Co., 111 Broadway, New York.

Oliver Machinery Co., Grand Rapids, Mich.

Potter & Johnston Machine Co., Pawtucket, R. I.

Pratt & Whitney Co., Hartford, Ct.
F. E. Reed Co., Worcester, Mass.

Sebastian Lathe Co., Cincinnati, O.
Wm. Sellers & Co. (Inc.), Philadelphia.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.
Stark Tool Co., Waltham, Mass.

Stockbridge Machine Co., Worcester, Mass.
C. E. Sutton, Toledo, O.

Warner & Swasey Co., Cleveland, O.
Washburn Shops, Worcester, Mass.

Whitecomb-Blaisdell Machine Tool Co., Worcester, Mass.

MERCHANTS.

George E. Affleck, 107 Liberty St., N. Y.
Baird Machinery Co., Pittsburgh, Pa.

Brown & Zortman Machinery Co., Pittsburgh, Pa.

Columbus Equipment Co., Columbus, O.
J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Hill, Clarke & Co., Boston, Mass.
Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.

Huntington Machinery & Supply Co., Wilkes-Barre, Pa.
W. C. Johnson & Sons Machinery Co., St. Louis, Mo.

Marshall & Huschart Machinery Co., 62-64 S. Canal St., Chicago, Ill.
McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.

Geo. A. McLean & Co., Pittsburgh, Pa.
Metch & Merryweather Machinery Co., Cleveland, O.

New York Machinery Co., 120 Broadway, New York.
Patterson, Gottfried & Hunter, Ltd., 144-150 Centre St., New York.

Prentiss Tool & Supply Co., 115 Liberty St., New York.
W. L. Sargent, Fitchburg, Mass.

L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.
H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
Thornton Machinery Co., Providence, R. I.
Frank Toomey, 127-131 N. 3d St., Philadelphia, Pa.
Jacob Ullman, Buffalo, N. Y.
Vandyck, Churchill Co., 8 Dey St., N. Y.
William Ward, Pittsburgh, Pa.
Wicks Bros., Saginaw, Mich.
C. C. Wormer Machinery Co., Detroit, Mich.

Lathes, Automatic Chuck Turret—

Pratt & Whitney Co., Hartford, Ct.

Lathes, Automatic Screw Threading—

Automatic Machine Co., Bridgeport, Ct.

Pratt & Whitney Co., Hartford, Ct.

Lathes, Axle—

I. H. Johnson Jr. Co., Inc., 1422 Callowhill St., Philadelphia, Pa.
Niles-Bement-Pond Co., 111 Broadway, New York.

Wm. Sellers & Co. (Inc.), Philadelphia.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
Brown & Zortman Machinery Co., Pittsburgh, Pa.
Fairbanks Co., 416 Broome St., New York.
Hill, Clarke & Co., Boston, Mass.
Marshall & Huchart Machinery Co., 62 S. Canal St., Chicago, Ill.
Wicks Bros., Saginaw, Mich.
C. C. Wormer Machinery Co., Detroit, Mich.

Lathes, Bench—

B. F. Barnes Co., Rockford, Ill.
Garvin Machine Co., Spring & Varick Sts., New York.

Gould & Eberhardt, Newark, N. J.
Massachusetts Tool Co., Greenfield, Mass.
Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.
F. E. Reed Co., Worcester, Mass.

Sebastian Lathie Co., Cincinnati, O.
Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Stark Tool Co., Waltham, Mass.

Lathes, Brass—

American Tool & Machine Co., Boston.
Dresses Machine Tool Co., Cincinnati, O.
Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.
F. E. Reed Co., Worcester, Mass.

Warner & Swasey Co., Cleveland, O.
Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.
Hill, Clarke & Co., Boston, Mass.
Marshall & Huchart Machinery Co., 62 S. Canal St., Chicago, Ill.
Thornton Machinery Co., Providence, R. I.

C. C. Wormer Machinery Co., Detroit, Mich.

Lathes, Buffing and Polishing—

(See Buffing and Polishing Machines.)

Lathes, Car Wheel—

Betts Machine Co., Wilmington, Del.

E. Harrington, Son & Co., Inc., Philadelphia, Pa.

J. J. McCabe, 14 Dey St., New York.
Niles-Bement-Pond Co., 111 Broadway, New York.

Lathes, Chucking—

American Tool Works Co., Cincinnati, O.
Bradford Machine Tool Co., Cincinnati, O.
Dresses Machine Tool Co., Cincinnati, O.
Garvin Machine Co., Spring & Varick Sts., New York.

Greaves, Klusman & Co., Cincinnati, O.
I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.

Jones & Lamson Machine Co., Springfield, Vt.
R. K. Le Blond Machine Tool Co., Cincinnati, O.

Lodge & Shipley Machine Tool Co., Cincinnati, O.

New Haven Mfg. Co., New Haven, Ct.
Niles-Bement-Pond Co., 111 Broadway, New York.

Potter & Johnston Machine Co., Pawtucket, R. I.

Pratt & Whitney Co., Hartford, Ct.
F. E. Reed Co., Worcester, Mass.

Warner & Swasey Co., Cleveland, O.
Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
Fairbanks Co., 416 Broome St., New York.
Hill, Clarke & Co., Boston, Mass.
Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.

Marshall & Huchart Machinery Co., 62 S. Canal St., Chicago, Ill.
Vandyck, Churchill Co., 8 Dey St., New York.

C. C. Wormer Machinery Co., Detroit, Mich.

Lathes, Chucking Turret—

American Tool Works Co., Cincinnati, O.
Bradford Machine Tool Co., Cincinnati, O.
Hill, Clarke & Co., Boston, Mass.

I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.

Jones & Lamson Machine Co., Springfield, Vt.

Lodge & Shipley Machine Tool Co., Cincinnati, O.
Niles-Bement-Pond Co., 111 Broadway, New York.

Potter & Johnston Machine Co., Pawtucket, R. I.

Pratt & Whitney Co., Hartford, Ct.
F. E. Reed Co., Worcester, Mass.

Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.

Lathes, Crank Shaft—

Tindel-Morris Co., Eddystone, Pa.

Lathes, Double Spindle—

J. J. McCabe, 14 Dey St., New York.

Lathes, Edging—

Blake & Johnson, Waterbury, Ct.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Lathes, Engine—

American Tool Works Co., Cincinnati, O.
Automatic Machine Co., Bridgeport, Ct.
B. F. Barnes Co., Rockford, Ill.

W. F. & John Barnes Co., Rockford, Ill.
Bradford Machine Tool Co., Cincinnati, O.
Ballard Machine Tool Co., Bridgeport, Ct.
Champion Tool Works Co., Cincinnati, O.

W. P. Davis Machine Co., Rochester, N. Y.

Diamond Machine Co., Providence, R. I.
Dresses Machine Tool Co., Cincinnati, O.
Fitchburg Machine Works, Fitchburg, Mass.

Flather & Co., Inc., Nashua, N. H.
Garvin Machine Co., Spring & Varick Sts., New York.

Gleason Works, Rochester, N. Y.
Gould & Eberhardt, Newark, N. J.
Graves, Kluhan & Co., Cincinnati, O.
Hendey Machine Co., Torrington, Ct.
I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.

It. K. Le Blond Machine Tool Co., Cincinnati, O.
Lodge & Shipley Machine Tool Co., Cincinnati, O.

J. J. McCabe, 11 Dey St., New York.
New Haven Mfg. Co., New Haven, Ct.
Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.
F. E. Reed Co., Worcester, Mass.
Sebastian Lathe Co., Cincinnati, O.
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
Seneca Mfg. Co., Seneca Falls, N. Y.

Washburn Shops, Worcester, Mass.
Whitcomb-Blaiddell Machine Tool Co., Worcester, Mass.

Wickes Bros., Saginaw, Mich.

MERCHANTS.

Geo. E. Amick, 109 Liberty St., N. Y.
Balrd Machinery Co., Pittsburgh, Pa.
Brown & Zortman Machinery Co., Pittsburgh, Pa.

Columbus Equipment Co., Columbus, O.
J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.
Frovert Machinery Co., 18 Dey St., New York.

Hannum & Finton, Springfield, Mass.
1111, Clarke & Co., Boston, Mass.
Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.

Huntington Machinery & Supply Co., Wilkes-Barre, Pa.

A. V. Kaiser & Co., 222 S. Third St., Philadelphia, Pa.

Marshall & Hushart Machinery Co., 62 S. Canal St., Chicago, Ill.

McDowell & Co., Allegheny, Pa.
McDowell, Stucker & Co., 59 S. Canal St., Chicago, Ill.

Geo. A. McLean & Co., Pittsburgh, Pa.
Manning, Maxwell & Moore, 85 Liberty St., New York.

Metc & Merryweather Machinery Co., Cleveland, O.

New York Machinery Depot, 120 Broadway, New York.

Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.

H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.

Thompson-Honey Co., Brooklyn, N. Y.
Thurston Machinery Co., Providence, R. I.

Jacob Ullman, Buffalo, N. Y.
Fendrick, Churchill Co., 8 Dey St., N. Y.
William Ward, Pittsburgh, Pa.

C. C. Wormer Machinery Co., Detroit, Mich.

Lathea, Feet—

E. F. Barnes Co., Rockford, Ill.
W. F. & John Barnes Co., Rockford, Ill.
Champion Tool Works Co., Cincinnati, O.
W. P. Davis Machine Co., Rochester, N. Y.

Garrin Machine Co., Spring & Varick Sts., New York.

Milburn Falls Co., 28 Warren St., N. Y.
Niles-Bement-Pond Co., 111 Broadway, New York.

F. E. Reed Co., Worcester, Mass.
Sebastian Lathe Co., Cincinnati, O.
Seneca Falls Mfg. Co., Seneca Falls, N. Y.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.

Marshall & Hushart Machinery Co., 62 S. Canal St., Chicago, Ill.

Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.

L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.

C. C. Wormer Machinery Co., Detroit, Mich.

Lathea, Forming—

F. E. Reed Co., Worcester, Mass.
Warner & Swasey Co., Cleveland, O.

Lathea, Gap—

American Tool Works Co., Cincinnati, O.
I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Oliver Machinery Co., Grand Rapids, Mich.

Pratt & Whitney Co., Hartford, Ct.
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

Lathea, Golf Head Forming—

Kimball Bros. & Sprague, Brockton, Mass.

Lathea, Gun Barrel Turning and Boring—

Pratt & Whitney Co., Hartford, Ct.
F. E. Reed Co., Worcester, Mass.

Lathea, Gun Turning and Boring—

I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

F. E. Reed Co., Worcester, Mass.
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

Lathea, Hand—

I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.

F. E. Reed Co., Worcester, Mass.
Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Lathea, Hand, Universal—

Brown & Sharpe Mfg. Co., Providence, R. I.

F. E. Reed Co., Worcester, Mass.

Lathea, Ingot—

I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Lathea, Last—

Defiance Machine Works, Defiance, O.

Kimball Bros. & Sprague, Brockton, Mass.

F. E. Reed Co., Worcester, Mass.

Lathes, Locomotive Driving Wheel—

Wm. Sellers & Co., Inc., 1600 Hamilton Ave., Philadelphia, Pa.

Lathes, Manual Training—

Oliver Machinery Co., Grand Rapids, Mich.

Pratt & Whitney Co., Hartford, Ct.

F. E. Reed Co., Worcester, Mass.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Lathes, Pit—

Gleason Works, Rochester, N. Y.

Wickes Bros., Saginaw, Mich.

Lathes, Precision—

Pratt & Whitney Co., Hartford, Ct.

Stark Tool Co., Waltham, Mass.

Lathes, Precision. Attachments for Clock Machinery—

Stark Tool Co., Waltham, Mass.

Lathes, Projectile Boring and Turning—

American Tool Works Co., Cincinnati, O.

Bradford Machine Tool Co., Cincinnati, O.

I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Lathes, Pulley Turning—

American Tool Works Co., Cincinnati, O.

Lodge & Shipley Machine Tool Co., Cincinnati, O.

New Haven Mfg. Co., New Haven, Ct.

Niles-Bement-Pond Co., 111 Broadway, New York.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.

Lathes, Quick Change Gear—

American Tool Works Co., Cincinnati, O.

Flather & Co., Inc., Nashua, N. H.

Hendey Machine Co., Torrington, Ct.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.

Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.

Lathes, Rapid Reduction—

American Tool Works Co., Cincinnati, O.

Bullard Machine Tool Co., Bridgeport, Ct.

Niles-Bement-Pond Co., 111 Broadway, New York.

F. E. Reed Co., Worcester, Mass.

Lathes, Roll—

American Tool Works Co., Cincinnati, O.

Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

George A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.

I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.

Lewis Foundry & Machine Co., Pittsburgh, Pa.

Mesta Machine Co., Pittsburgh, Pa.

Morgan Construction Co., Worcester, Mass.

Niles-Bement-Pond Co., 111 Broadway, New York.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

United Engineering & Foundry Co., Pittsburgh, Pa.

Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.

Phillips-Laffitte Co., Pennsylvania Bldg., Philadelphia, Pa.

Wickes Bros., Saginaw, Mich.

C. C. Wormer Machinery Co., Detroit, Mich.

Lathes, Roll Engraving—

Gould & Eberhardt, Newark, N. J.

Lathes, Roll Polishing—

Gould & Eberhardt, Newark, N. J.

Lathes, Screw Cutting.

Foot—

Champion Tool Works Co., Cincinnati, O.

F. E. Reed Co., Worcester, Mass.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Lathes, Shaft Turning—

American Tool Works Co., Cincinnati, O.

Bradford Machine Tool Co., Cincinnati, O.

Fitchburg Machine Works, Fitchburg, Mass.

Gleason Works, Rochester, N. Y.

E. Harrington, Son & Co. (Inc.), Philadelphia, Pa.

I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

F. E. Reed Co., Worcester, Mass.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.

Hill, Clarke & Co., Boston, Mass.

C. C. Wormer Machinery Co., Detroit, Mich.

Lathes, Speed—

Automatic Machine Co., Greenfield, Mass.

Bausch Mach. Tool Co., Springfield, Mass.

Defiance Machine Works, Defiance, O.

Diamond Machine Co., Providence, R. I.

Dresses Machine Tool Co., Cincinnati, O.

Garvin Machine Co., Spring & Varick Sts., New York.

Grant Mfg. & Machine Co., Bridgeport, Ct.

Greaves, Klusman & Co., Cincinnati, O.

I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.

R. E. Kidder, Worcester, Mass.

Niles-Bement-Pond Co., 111 Broadway, New York.

Oliver Machinery Co., Grand Rapids, Mich.

Pratt & Whitney Co., Hartford, Ct.

Louis E. Rechtin & Bro., Cincinnati, O.

F. E. Reed Co., Worcester, Mass.

Sebastian Lathe Co., Cincinnati, O.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Stockbridge Machine Co., Worcester, Mass.

Washburn Shops, Worcester, Mass.

Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.

J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.

Hill, Clarke & Co., Boston, Mass.

Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.

Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.

McDowell & Co., Allegheny, Pa.

McDowell, Stocker & Co., 53 S. Canal St., Chicago, Ill.

- Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.
- Thornton Machinery Co., Providence, R. I.
- Vandyck, Churchill Co., 8 Dey St., N. Y.
- C. C. Wormer Machinery Co., Detroit, Mich.
- Lathes, Spindle Boring—**
American Tool Works Co., Cincinnati, O.
- I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.
- Lathes, Spinning—**
Blair & Johnson, Waterbury, Ct.
- E. W. Bliss Co., Brooklyn, N. Y.
- Groves, Klusman & Co., Cincinnati, O.
- W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
- I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.
- E. J. Manville Mach. Co., Waterbury, Ct.
- Niles-Bement-Pond Co., 111 Broadway, New York.
- Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
- Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.
- Lathes, Strapping—**
Springfield Mfg. Co., Bridgeport, Ct.
- Lathes, Stud and Bolt—**
Champion Tool Works Co., Cincinnati, O.
- F. E. Reed Co., Worcester, Mass.
- Lathes, Tool Room—**
American Tool Works Co., Cincinnati, O.
- Bradford Machine Tool Co., Cincinnati, O.
- Champion Tool Works Co., Cincinnati, O.
- Fairbanks Co., 416 Broome St., New York.
- Flather & Co., Inc., Nashua, N. H.
- Hendey Machine Co., Torrington, Ct.
- Niles-Bement-Pond Co., 111 Broadway, New York.
- Pratt & Whitney Co., Hartford, Ct.
- F. E. Reed Co., Worcester, Mass.
- Seneca Falls Mfg. Co., Seneca Falls, N. Y.
- C. E. Sutton Co., Toledo, O.
- Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.
- Lathes, Turret—**
American Tool Works Co., Cincinnati, O.
- Bradford Machine Tool Co., Cincinnati, O.
- Bullard Mach. Tool Co., Bridgeport, Ct.
- Dreses Machine Tool Co., Cincinnati, O.
- Flather & Co., Inc., Nashua, N. H.
- Garvin Machine Co., Spring & Varick Sts., New York.
- Groves, Klusman & Co., Cincinnati, O.
- Hendey Machine Co., Torrington, Ct.
- I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.
- Jones & Lamson Machine Co., Springfield, Vt.
- R. K. Le Blond Machine Tool Co., Cincinnati, O.
- Lodge & Shipley Machine Tool Co., Cincinnati, O.
- Manning, Maxwell & Moore, 85 Liberty St., New York.
- New Haven Mfg. Co., New Haven, Ct.
- Niles-Bement-Pond Co., 111 Broadway, New York.
- Potter & Johnston Machine Co., Pawtucket, R. I.
- Pratt & Whitney Co., Hartford, Ct.
- F. E. Reed Co., Worcester, Mass.
- Sebastian Lathes Co., Cincinnati, O.
- Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
- Warner & Swasey Co., Cleveland, O.
- Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.
- MERCHANTS.**
George E. Affleck, 107 Liberty St., N. Y.
- Hair Machinery Co., Pittsburgh, Pa.
- J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
- Fairbanks Co., 416 Broome St., New York.
- Hill, Clarke & Co., Boston, Mass.
- Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.
- Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.
- Motch & Merryweather Machinery Co., Cleveland, O.
- Prentiss Tool & Supply Co., 115 Liberty St., New York.
- H. A. Rogers Co., 19 John St., New York.
- Ignornton Machinery Co., Providence, R. I.
- Vandyck, Churchill Co., 8 Dey St., N. Y.
- Wickes Bros., Saginaw, Mich.
- Lathes, Turret on Carriage—**
American Tool Works Co., Cincinnati, O.
- Bradford Machine Tool Co., Cincinnati, O.
- Bullard Machine Tool Co., Bridgeport, Ct.
- Flather & Co., Inc., Nashua, N. H.
- Groves, Klusman & Co., Cincinnati, O.
- Hendey Machine Co., Torrington, Ct.
- I. H. Johnson, Jr., Co., Inc., 33 N. 15th St., Philadelphia, Pa.
- Werner & Swasey Co., Cleveland, O.
- Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.
- Lathes, Vertical Turret—**
Bullard Machine Tool Co., Bridgeport, Ct.
- Colburn Machine Tool Co., Franklin, Pa.
- Warner & Swasey Co., Cleveland, O.
- Lathes, Wire Die Reaming—**
Morgan Construction Co., Worcester, Mass.
- Lathes, Worm Threading—**
Automatic Machine Co., Bridgeport, Ct.
- Launch Hardware—**
W. & J. Tiebout, 118 Chambers St., New York.
- Launches—**
Dodge Mfg. Co., Mishawaka, Ind.
- John M. Rogers Boat Gauge & Drill Works, Gloucester City, N. J.
- Laundry Drying Apparatus—**
B. F. Sturtevant Co., Boston, Mass.
- Laundry Irons—**
(See Irons, Laundry.)
- Lavatory Fittings and Legs—**
(See Plumbing Supplies.)
- Lawn Fountains, Mowers, Rakes, &c.—**
(See Fountains, Mowers, Rakes, &c.)
- Lawn Furniture—**
(See Chairs and Settees, Lawn.)
- Lead—**
American Metal Co., 52 Broadway, N. Y.
- Empire Metal Co., Syracuse, N. Y.
- Hendricks Bros., 49 Cliff St., New York.
- Theo. Hiertz Metal Co., St. Louis, Mo.
- Merchant & Evans Co., Philadelphia, Pa.
- Pittsburgh White Metal Co., Pittsburgh.
- Arthur T. Butter & Co., 256 Broadway, New York.
- J. J. Ryan & Co., 68-74 W. Monroe St., Chicago, Ill.
- Sandoval Zinc Co., 122 N. Peoria St., Chicago, Ill.
- N. & G. Taylor Co., Chestnut and Third Sts., Philadelphia, Pa.

- Lead Car Seals—**
Theo. Hiertz Metal Co., St. Louis, Mo.
- Lead Covers, Wire—**
(See Wires, Electrical.)
- Lead Enamel Wire—**
(See Wire, Electrical.)
- Lead Furnaces—**
(See Furnaces, Portable, &c.)
- Lead Pencils, Pipe—**
(See Pencils, Pipe.)
- Lead Sheet, Perforated—**
Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.
Hendrick Mfg. Co., Carbondale, Pa.
Chas. Mundt & Sons, 441-447 Pearl St., New York.
- Leaders, Cattle—**
Covert Mfg. Co., Troy, N. Y.
Oneida Community, Kenwood, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Leads, Halter—**
Covert Mfg. Co., Troy, N. Y.
- Leads, Lumber Marking—**
Jos. Dixon Crucible Co., Jersey City, N. J.
- Leads, Sounding—**
W. & J. Tiebout, 118 Chambers St., N. Y.
- Leather Belt Lacing—**
(See Belt Lacing, Leather.)
- Leather Belting Strips—**
(See Belting Strips.)
- Leather Harness—**
Chas. A. Schieren & Co., 37 Ferry St., New York.
- Leather, Hydraulic—**
Chas. A. Schieren & Co., 37 Ferry St., New York.
- Leather Splitting Knives—**
(See Knives, Machine.)
- Leather Washers—**
(See Washers, Leather.)
- Leathers, Pump—**
Barnes Mfg. Co., Mansfield, O.
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.
Humphreys Mfg. Co., Mansfield, O.
- Legs and Lavatory Fittings—**
(See Plumbing Supplies.)
- Lemon Squeezers—**
(See Squeezers, Lemon.)
- Letter Binders, File Openers, Presses—**
(See Binders, Openers, Presses.)
- Letter Plates, Drop—**
(See Plates, Drop Letter.)
- Letter Scales—**
(See Scales, Letter, Silver Plated.)
- Letters and Figures, Brass—**
Cleveland Galvanizing Works, Cleveland.
- Letters and Figures, Burning Brand—**
A. G. Butler, 234-236 Pearl St., New York.
- Letters and Figures, Cor-nice and Sign—**
Berger Mfg. Co., Canton, O.
Edward Mfg. Co., Cincinnati, O.
- Letters and Figures, House, &c.—**
American Ring Co., Waterbury, Ct.
American Railway Supply Co., 24 Park Place, New York.
Arcade Mfg. Co., Freeport, Ill.
Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.
Chicago Spring Butt Co., Chicago, Ill.
Goodwin & Kintz Co., Winsted, Ct.
- Pending Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Schwerdtle Stamp Co., Bridgeport, Ct.
Taylor & Boggis Foundry Co., Cleveland, O.
W. & J. Tiebout, 118 Chambers St., N. Y.
Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.
Wiebusch & Hilger, 9-15 Murray St., N. Y.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.
- Letters and Figures, Pat-tern—**
A. G. Butler, 234-236 Pearl St., New York.
Cleveland Galvanizing Works, Cleveland.
s. Obermayer Co., Cincinnati, O.
Oliver Machinery Co., Grand Rapids, Mich.
Osborn Mfg. Co., Cleveland, O.
J. W. Paxson Co., Philadelphia, Pa.
Schwerdtle Stamp Co., Bridgeport, Ct.
J. D. Smith Foundry Supply Co., Cleveland, O.
St. Louis Electrotpe Foundry, St. Louis.
Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.
- Letters and Figures, Steel—**
A. G. Butler, 234-236 Pearl St., New York.
Cleveland Galvanizing Works Co., Cleveland, O.
E. Konigalaw Stamping & Tool Works, Cleveland, O.
Geo. M. Ness, Jr., 61 Fulton St., N. Y.
New York Stencil Works, 100 Nassau St., New York.
R. Woodman Mfg. & Supply Co., Boston.
- Letters, Cast Iron Sign—**
Brown & Sharpe Mfg. Co., Providence, R. I.
- Level Sights—**
Stanley Rule & Level Co., New Britain, Ct.
- Levelers and Graders, Road—**
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Syracuse Chilled Plow Co., Syracuse, N. Y.
- Leveling and Squaring In-struments—**
(See Instruments, Leveling and Squaring.)
- Leveling Rods, Poles—**
(See Rods, Poles.)
- Levels and Plumbs—**
(See Plumbs and Levels.)
- Levels, Bit and Square—**
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Stanley Rule & Level Co., New Britain, Ct.
- Levels, Cross—**
Athol Machine Co., Athol, Mass.
L. S. Starratt Co., Athol, Mass.
- Levels, Engineers—**
Keuffel & Esser Co., 127 Fulton St., N. Y.
- Levels, Hand Bench—**
O. B. Jennings & Co., 42 Murray St., New York.
- Levels, Iron—**
Athol Machine Co., Athol, Mass.
Henry Disston & Sons, Philadelphia, Pa.
Keuffel & Esser Co., 127 Fulton St., N. Y.
Millers Falls Co., 28 Warren St., N. Y.
Stanley Rule & Level Co., New Brit-ain, Ct.
L. S. Starratt Co., Athol, Mass.
(See also Plumbs and Levels.)

Levels, Machinists'—

Athol Machine Co., Athol, Mass.
 Baker, McMillen Co., Akron, O.
 Chapin-Stephens Co., Pine Meadow, Ct.
 Henry Disston & Sons, Philadelphia, Pa.
 Keuffel & Esser Co., 127 Fulton St., N. Y.
 L. S. Starrett Co., Athol, Mass.

Levels, Masons'—

Baker, McMillen Co., Akron, O.

Levels, Plane Tables, Sextants, &c.—

(See Surveying Instruments.)

Levels, Plumbers'—

Athol Machine Co., Athol, Mass.
 L. S. Starrett Co., Athol, Mass.

Levels, Pocket—

Athol Machine Co., Athol, Mass.
 Baker, McMillen Co., Akron, O.
 Chapin-Stephens Co., Pine Meadow, Ct.
 Henry Disston & Sons, Philadelphia, Pa.
 Keuffel & Esser Co., 127 Fulton St., N. Y.
 Stanley Rule & Level Co., New Britain, Ct.

L. S. Starrett Co., Athol, Mass.
 Tower & Lyon Co., 95 Chambers St., New York.

Levels, Railroad Track—

Chapin-Stephens Co., Pine Meadow, Ct.
 Sheffield Car Co., Three Rivers, Mich.

Levels, Shafting—

Athol Machine Co., Athol, Mass.
 Henry Disston & Sons, Philadelphia, Pa.
 Keuffel & Esser Co., 127 Fulton St., N. Y.
 L. S. Starrett Co., Athol, Mass.

Levels, Y—

Keuffel & Esser Co., 127 Fulton St., N. Y.

Lever Bells—

(See Bells.)

Levers, Door Bell—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Levers, Machine—

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Lewis, Stone—

Trow & Holden, Barre, Vt.

Lift Pumps—

(See Pumps, Lift.)

Lifters, Crown and Seal

Stopper—
 Erie, Specialty Co., Erie, Pa.

Lifters, Drop Press and

Hammer—
 Miner & Peck Mfg. Co., New Haven, Ct.
 George A. Ohl & Co., Newark, N. J.

Lifters, Pan—

Adell Bros. Mfg. Co., Orange, Mass.

Lifters, Sash—

Arcade Mfg. Co., Freeport, Ill.
 W. J. Clark Co., Salem, O.
 Columbian Hardware Co., Cleveland, O.
 Griffin Mfg. Co., Erie, Pa.
 H. B. Ives Co., New Haven, Ct.
 McKinney Mfg. Co., Allegheny, Pa.
 National Mfg. Co., Sterling, Ill.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Shelby Spring Hinge Co., Shelby, O.

Stanley Works, New Britain, Ct.

Taylor & Boggis Foundry Co., Cleveland.
 Wrightsville Hardware Co., Wrightsville, Pa.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Lifters, Shutter—

Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Lifters, Stove Lid—

Arcade Mfg. Co., Freeport, Ill.
 Columbia Grey Iron Co., Columbia, Pa.
 Fanner Mfg. Co., Cleveland, O.
 New York Stamping Co., Brooklyn, N. Y.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Schreiber & Conchar Mfg. Co., Dubuque, Ia.

A. C. Williams, Ravenna, O.

Wire Goods Co., Worcester, Mass.
 Wrightsville Hardware Co., Wrightsville, Pa.

Lifters, Transom—

Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Lifters, Trunk—

J. H. Sessions & Son, Bristol, Ct.

Lifters, Window Screen—

Parker Wire Goods Co., Worcester, Mass.
 Wire Goods Co., Worcester, Mass.

Lifting Apparatus, Sash—

Hitchings & Co., 1170 Broadway, New York.

Lord & Burnham Co., Irvington-on-Hudson, N. Y.

Lifting Handles, Scales—

(See Handles, Scales.)

Lifts, Acid—

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Lifts, Invalid—

Storm Mfg. Co., Newark, N. J.

Lifts, Shoe—

W. G. Weiss & Son, 229 E. 42d St., New York.

Lifts, Sidewalk—

(See Hoists, Sidewalk.)

Lighters, Gas, Electric—

W. R. Ostrander & Co., 22 Dey St., N. Y.

Lighting Systems, Kero-

sene—
 Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.

Lightning Arresters—

(See Arresters, Lightning.)

Lightning Rod Fixtures—

Cleveland Galvanizing Works, Cleveland.

Lights, Side and Deck—

W. & J. Tiebout, 118 Chambers St., N. Y.

Lights, Sidewalk—

(See Iron Work, Builders'.)

Lignumvitae, in Log—

Boston & Lockport Block Co., Boston.

Limestone—

Columbus Iron & Steel Co., Columbus, O.

Limestone, Crushed—

Reed & Blair & Co., Pittsburgh, Pa.

Line Cleats, Grips—

(See Cleats, Grips.)

Liners, Locomotive Guide—

L. S. Starrett Co., Athol, Mass.

Liners, Section—

Keuffel & Esser Co., 127 Fulton St., N. Y.

L. S. Starrett Co., Athol, Mass.

Lines, Chalk, Masons', &c.—
Ossawan Mills Co., Norwich, Ct.
Samson Cordage Works, Boston, Mass.
Silver Lake Co., Boston, Mass.

Lines, Clothes, Cotton, &c.—
Estes Mills, Fall River, Mass.
Ossawan Mills Co., Norwich, Ct.
Samson Cordage Works, Boston, Mass.
Silver Lake Co., Boston, Mass.

Lines, Clothes, Manila and Sisal.—
Plymouth Cordage Co., North Plymouth, Mass.

Lines, Clothes, Wire.—
Ludlow-Saylor Wire Co., St. Louis, Mo.
Parker Wire Goods Co., Worcester, Mass.
Williamsport Wire Rope Co., Williamsport, Pa.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Lines, Fishing.—
Clark, Horrocks Co., Utica, N. Y.
Dane, Stoddard & Co., Boston, Mass.
Enterprise Mfg. Co., Akron, O.
E. J. Martin's Sons, Rockville, Ct.

Lines, Garden.—
Samson Cordage Works, Boston, Mass.
Silver Lake Co., Boston, Mass.
Lines, Tent and Awning.—
Silver Lake Co., Boston, Mass.

Lines, Towing.—
New York Cordage Co., 83-85 Wall St., New York.

Linings, Cupola.—
Hayes Run Fire Brick Co., Orvis, Pa.
Laclede Fire Brick Mfg. Co., St. Louis, Mo.
Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., Philadelphia, Pa.
Portsmouth Harbison-Walker Co., Portsmouth, O.
Presbrey Fire Brick Works, Taunton, Mass.

M. D. Valentine & Bro. Co., Woodbridge, N. J.

Linings, Dress, Crinoline.—
I. E. Palmer, Middletown, Ct.

Linings, Flue.—
Hayes Run Fire Brick Co., Orvis, Pa.
Laclede Fire Brick Mfg. Co., St. Louis, Mo.

Linings, Stove.—
Harbison-Walker Refractories Co., Pittsburgh, Pa.

Hayes Run Fire Brick Co., Orvis, Pa.
Laclede Fire Brick Mfg. Co., St. Louis, Mo.
Ostrander Fire Brick Co., Troy, N. Y.
Presbrey Fire Brick Works, Taunton, Mass.

Link Belting, Chain.—
(See Belting, Chain Link.)

Links, Bed.—
Wm. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
E. H. Titchener & Co., Binghamton, N. Y.

Links, Car Coupling.—
Cleveland City Forge & Iron Co., Cleveland, O.
Jones & Laughlin Steel Co., Pittsburgh.
Keystone Drop Forge Works, Chester, Pa.
Standard Chain Co., Pittsburgh, Pa.

Links, Chain.—
(See Chain Links.)

Links, Fusible.—
Lane Bros. Co., Poughkeepsie, N. Y.
M. Lanz & Sons, Pittsburgh, Pa.
Richards Mfg. Co., Aurora, Ill.

Links, Repair and Lap.—
Beecher Draught Spring Co., New Haven, Bridgeport Chain Co., Bridgeport, Ct.
Kentucky Chain Co., Frankfort, Ky.
Keystone Drop Forge Works, Chester, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Marine Hardware & Equipment Co., So. Portland, Me.

Oneida Community, Kenwood, N. Y.
Seneca Chain Co., Kent, O.
Smith & Hemenway Co., 108-110 Duane St., New York.
Standard Chain Co., Pittsburgh, Pa.
W. & J. Tiebout, 118 Chambers St., N. Y.

Links, Strap.—
W. J. Clark & Co., Salem, O.
Linoleum Machinery.—
Farrel Foundry & Mach. Co., Annonia, Ct.

Linotype Metal.—
Theo. Hiertz Metal Co., St. Louis, Mo.
Merchant & Evans Co., Philadelphia, Pa.
Pittsburgh White Metal Co., Pittsburgh.

Linties.—
(See Architectural Sheet Metal Work.)

Loaders, Hay.—
(See Haying Tools.)

Loaders, Horse, Car.—
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Loaders, Log.—
Browning Engineering Co., Cleveland, O.
Boule Steam Feed Works, Meridian, Miss.

Lock and Coasters, Combined, Bicycle.—
(See Brakes, Coaster, Bicycle.)

Lock Corner Cutters.—
(See Cutters, Lock Corner.)

Locks, Hatch, Hasp and Staple, Combined.—
Smith & Hemenway Co., 108-110 Duane St., New York.

Lock Nuts.—
(See Nuts, Lock.)

Lockers, Office and Shop.—
W. J. Clark Co., Salem, O.
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
Glen Mfg. Co., Ellwood City, Pa.
Merritt & Co., 1024-1028 Ridge Ave., Philadelphia, Pa.
Michigan Wire Cloth Co., Detroit, Mich.
Wright Wire Co., Worcester, Mass.

Locks and Handles, Store Door.—
(See Handles and Locks, Store Door.)

Locks and Latches, Barn Door.—

Arcade Mfg. Co., Freeport, Ill.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Lawrence Bros., Sterling, Ill.
National Mfg. Co., Sterling, Ill.

Locks and Latches, Ship.—
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

W. & J. Tiebout, 118 Chambers St., N. Y.
Locks and Latches, Sliding Door.—

Cronk & Carrier Mfg. Co., Elmira, N. Y.
Lane Bros. Co., Poughkeepsie, N. Y.
Louden Machinery Co., Fairfield, Ia.
J. E. Porter Co., Ottawa, Ill.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Yale & Towne Mfg. Co., 3-15 Murray St., New York.

Locks and Trimmings, Car.—
H. B. Ives Co., New Haven, Ct.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Locks, Automobile and Carriage—

Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

Locks, Bank—

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Locks, Bicycle—

Ames Sword Co., Chicopee, Mass.
Eagle Lock Co., Terryville, Ct.
John H. Graham & Co., 115 Chambers St., New York.

Smith & Egge Mfg. Co., Bridgeport, Ct.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Locks, Buckle—

Eagle Lock Co., Terryville, Ct.

Locks, Cabinet—

Eagle Lock Co., Terryville, Ct.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Locks, Car Window—

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Locks, Combination Post Office Box—

Eagle Lock Co., Terryville, Ct.

Locks, Elevator Door—

Chisholm & Moore Mfg. Co., Cleveland.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Locks, Elevator Safety—

Salem Elevator Works, Salem, Mass.

Locks, Factory and Mill—

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Locks, Latches, &c.—

Eagle Lock Co., Terryville, Ct.
National Mfg. Co., Sterling, Ill.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Taylor & Boggis Foundry Co., Cleveland.
Wagner Mfg. Co., Cedar Falls, Ia.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Locks, Locker—

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Locks, Masterkeyed—

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Locks, Pad—

Ames Sword Co., Chicopee, Mass.
Eagle Lock Co., Terryville, Ct.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Smith & Egge Mfg. Co., Bridgeport, Ct.
W. & J. Tiebout, 118 Chambers St., N. Y.

Tower & Lyon Co., 95 Chambers St., New York.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Locks, Prison—

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Locks, Railroad Switch—

Walter A. Zelnicker Supply Co., St. Louis.

Locks, Safe Deposit—

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Locks, Sash—

Brohard Co., Hutchinson St. & Columbia Ave., Philadelphia, Pa.

Builders' Supply Corporation, Indianapolis, Ind.

Caldwell Mfg. Co., Rochester, N. Y.
H. B. Ives Co., New Haven, Ct.

National Mfg. Co., Sterling, Ill.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pullman Mfg. Co., Rochester, N. Y.
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Shelby Spring Hinge Co., Shelby, O.
Taylor & Boggis Foundry Co., Cleveland.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Locks, Sash and Ventilating—

H. B. Ives Co., New Haven, Ct.

Lawson Mfg. Co., 40 Dearborn St., Chicago, Ill.

Locks, Sewing Machine—
Eagle Lock Co., Terryville, Ct.

Locks, Trunk, Case and Bag—

Eagle Lock Co., Terryville, Ct.
R. C. Jenkinson & Co., Newark, N. J.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Locomotive Blocks, Reflectors, Transfer Tables—
(See Blocks, Reflectors, Transfer Tables.)

Locomotive Clocks—
(See Clocks, Locomotive.)

Locomotive Jacket Steel Sheets—

American Sheet & Tin Plate Co., Pittsburgh, Pa.

Locomotive Liners—
L. S. Starrett Co., Athol, Mass.

Locomotive Netting—
(See Netting, Wire.)

Locomotive Spark Arrester Plates—

Harrington & King Perforating Co., 221 N. Union St., Chicago, Ill.

Charles Mundt & Sons, 441 Pearl St., New York.

W. S. Tyler Co., Cleveland, O.

Locomotive Works Machinery—

Cincinnati Shaper Co., Cincinnati, O.
Edward J. Etting, Harrison Bldg., Philadelphia, Pa.

Hilles & Jones Co., Wilmington, Del.
Niles-Bement-Pond Co., 111 Broadway, New York.

Wm. Sellers & Co. (Inc.), Philadelphia.
Wicks Bros., Saginaw, Mich.

Locomotives, Electric—
General Electric Co., Schenectady, N. Y.

C. W. Hunt Co., West New Brighton, N. Y.

Jeffrey Mfg. Co., Columbus, O.
Arthur Koppel Co., 66 Broad St., N. Y.

Robins Conveying Belt Co., Park Row Bldg., New York.

Wellman-Seaver-Morgan Co., Cleveland.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Ernst Wiener Co., 66 Broad St., N. Y.

MERCHANTS.
F. M. Hicks & Co., Chicago, Ill.

Locomotives, Gasoline—
Sheffield Car Co., Three Rivers, Mich.

Locomotives, Steam—

Atlas Car & Mfg. Co., Cleveland, O.
C. W. Hunt Co., West New Brighton,
N. Y.
Jeffrey Mfg. Co., Columbus, O.
Arthur Koppel, 66-68 Broad St., N. Y.
Ernst Wiener Co., 66 Broad St., N. Y.

MERCHANTS.

Carlin Machinery & Supply Co., Inc.,
Allegheny, Pa.
Thomas P. Conard & Co., 119 S. 4th St.,
Philadelphia, Pa.
Justice Cox, Jr., & Co., Land Title Bldg.,
Philadelphia, Pa.
Dallett & Co., Harrison Bldg., Philadel-
phia, Pa.
Barclay M. Everson, Pittsburgh, Pa.
F. M. Hicks & Co., Chicago, Ill.
Cal. Hirsch & Sons Iron & Rail Co., St.
Louis, Mo.
I. C. Hirsch Iron, Steel & Rail Co., Cin-
cinnati, O.
A. V. Kaiser & Co., 222 S. 3d St., Phila-
delphia, Pa.
Ernest Law & Co., 15th & Market Sts.,
Philadelphia, Pa.
McDowell & Co., Allegheny, Pa.
Rossiter, MacGovern & Co., Inc., 141
Broadway, New York.
Southern Iron & Equipment Co., Atlanta,
Ga.

Thompson-Bonney Co., Brooklyn, N. Y.
Wickes Bros., Saginaw, Mich.

Lodge Bells—

(See Bells, Altar and Lodge.)

Log and Lumber Rolls—

Lane Mfg. Co., Montpelier, Vt.
Log and Lumber Tools—
Brown Hoisting Machinery Co., Cleve-
land, O.
Browning Engineering Co., Cleveland, O.
Kilborn & Bishop Co., New Haven, Ct.
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
Soule Steam Feed Works, Meridian, Miss.
Wickes Bros., Saginaw, Mich.

Log Binders, Chains—

(See Binders, Chains.)

Log Hauls—

Broderick & Bascom Rope Co., St. Louis.
Buhl Malleable Co., Detroit, Mich.
Jeffrey Mfg. Co., Columbus, O.
Lane Mfg. Co., Montpelier, Vt.
A. Leschen & Sons Rope Co., St. Louis.
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
Link-Belt Engineering Co., Nicetown,
Philadelphia, Pa.
Soule Steam Feed Works, Meridian, Miss.
Wickes Bros., Saginaw, Mich.

Log Jacks—

(See Jacks, Log.)

Log Turners—

Wickes Bros., Saginaw, Mich.

Log Unloaders—

Lane Mfg. Co., Montpelier, Vt.

Logging and Driving Tools—

(See Tools, Lumber, also Log and Lum-
ber Tools.)

Logs, Gas—

Murdock-Shaw Co., Boston, Mass.

Logs, Marine—

Riggs & Bro., 310 Market St., Philadel-
phia, Pa.

Loom Bolts—

(See Bolts, Loom.)

Loom Repair Parts—

Homer F. Livermore, Boston, Mass.

Looms, Duck—

Poole Engineering & Machine Co., Balti-
more, Md.

Looms and Rings, Halter—

Seneca Chain Co., Kent, O.

Looms and Squares, Wire—

R. C. Jenkinson & Co., Newark, N. J.

Looms, Bag and Case—

Eagle Lock Co., Terryville, Ct.

Looms, Furniture—

(See Staples and Looms, Furniture.)

Looms, Garment Button—

Wire Novelty Mfg. Co., West Haven, Ct.

Looms, Garment Hanger—

Pullman Mfg. Co., Rochester, N. Y.

Looms, Trunk—

J. H. Sessions & Son, Bristol, Ct.

Lubricants—

(See also Grease, Axle.)

Jos. Dixon Crucible Co., Jersey City, N. J.
Robins Conveying Belt Co., 17-22 Park
Row, New York.

Lubricants, Automobile—

Joseph Dixon Crucible Co., Jersey City,
N. J.

Lubricants, Gear—

Joseph Dixon Crucible Co., Jersey City,
N. J.

Lubricants, Rope—

Broderick & Bascom Rope Co., St. Louis

A. Leschen & Sons Rope Co., St. Louis.

Lubricants, Wire Rope—

Broderick & Bascom Rope Co., St. Louis.

Joseph Dixon Crucible Co., Jersey City,
N. J.

A. Leschen & Sons Rope Co., St. Louis.

Lubricators—

Charles H. Bealy & Co., 15-21 Clinton St.,
Chicago, Ill.

Crosby Steam Gage & Valve Co., Boston.

Eynon-Eravs Mfg. Co., 1507 Clearfield
St., Philadelphia, Pa.

Gem Mfg. Co., Pittsburgh, Pa.

Lunkenheimer Co., Cincinnati, O.

McNab & Harlin Mfg. Co., 56 John St.,
New York.

Wm. Powell Co., Cincinnati, O.

Walworth Mfg. Co., Boston, Mass.

D. T. Williams Valve Co., Cincinnati, O.

Lubricators, Cylinder—

Lunkenheimer Co., Cincinnati, O.

Wm. Powell Co., Cincinnati, O.

Lubricators, Mechanical Pump—

Lunkenheimer Co., Cincinnati, O.

Lugs, Tank—

M. Lane & Sons, Pittsburgh, Pa.

Racine Tank Lug Co., Racine, Wis.

Lumber—

C. C. Putnam & Son, Putnamville, Vt.

Lumber, Asbestos, Fire Proof—

(See Asbestos Fire Proof Lumber.)

Lumber Tools, &c.—

(See Tools, &c.)

Machetes—

Henry Diston & Sons, Philadelphia, Pa.

Machine Bolts—

(See Bolts, Machine.)

Machine Handles, Knives, Levers, Screws—

(See Handles, Knives, Levers, Screws.)

Machinery is classified under
the headings descriptive of charac-
ter thereof.

Machinery Dealers—

Geo. E. Affleck, 109 Liberty St., N. Y.
 Raïd Machinery Co., Pittsburgh, Pa.
 B. F. Barnes, Rockford, Ill.
 Charles Behlen, 72 Trinity Pl., New York.
 Brown & Zortman Machinery Co., Pittsburgh, Pa.
 Geo. H. Bowler, Cleveland, O.
 Marvin Briggs, 12 Broadway, New York.
 Chandler & Farquhar Co., Boston, Mass.
 Chicago Edison Co., Edison Bldg., Chicago, Ill.
 Chicago House Wrecking Co., W. 35th & Iron Sts., Chicago, Ill.
 Columbus Equipment Co., Columbus, O.
 Thomas P. Conard & Co., 119 S. 4th St., Philadelphia, Pa.
 W. P. Davis Mach. Co., Rochester, N. Y.
 J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 Edward J. Eitting, Harrison Bldg., Philadelphia, Pa.
 Barclay M. Everson, Pittsburgh, Pa.
 Fairbanks Co., 416 Broome St., New York.
 Frevert Machinery Co., 18 Dey St., New York.
 Garvin Machine Co., Spring & Varick Sts., New York.
 Hannan & Flinton, Springfield, Mass.
 Hill, Clarke & Co., Boston, Mass.
 J. H. Hillman & Son, Pittsburgh, Pa.
 Cal. Hirsch & Sons Iron & Rail Co., St. Louis, Mo.
 Henry A. Hitner's Sons, cor. Huntingdon & Aramingo Aves., Philadelphia, Pa.
 C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.
 Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.
 Huntington Machinery & Supply Co., Wilkes-Barre, Pa.
 Irving Mfg. & Tool Co., 157 Chambers St., New York.
 W. C. Johnson & Sons Machinery Co., St. Louis, Mo.
 A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.
 Lovegrove & Co., Inc., 143-145 N. Third St., Philadelphia, Pa.
 Manning, Maxwell & Moore, 55 Liberty St., New York.
 Marshall & Hirschart Machinery Co., 62-64 So. Canal St., Chicago, Ill.
 J. J. McCabe, 14 Dey St., New York.
 McDowell & Co., Allegheny, Pa.
 McDowell, Stocker & Co., 59-61 So. Canal St., Chicago, Ill.
 Henry J. Miller's Sons, Bridgewater, Mass.
 Motch & Merryweather Machinery Co., Cleveland, O.
 New York Machinery Depot, 120 Broadway, New York.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Northern Engineering Works, Detroit, Mich.
 Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.
 Phillips-Laffite Co., Pennsylvania Bldg., Philadelphia, Pa.
 Pratt & Whitney Co., Hartford, Ct.
 Prentiss Tool & Supply Co., 115 Liberty St., New York.
 William A. Reade & Co., Cleveland, O.
 A. E. Rosenthal, Davenport, Ia.

Rossiter, MacGovern & Co., 17 Battery Pl., New York.
 Joseph T. Ryerson & Son, 18-22 Millwaukee Ave., Chicago, Ill.
 W. L. Sargent, Fitchburg, Mass.
 Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
 Sebastian Lathe Co., Cincinnati, O.
 L. F. Seyfert's Sons, 437-441 No. 3d St., Philadelphia, Pa.
 Shook & Fletcher, Birmingham, Ala.
 Stiles-Morse Co., Western Union Bldg., Chicago, Ill.
 H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
 Thomas & Lowe Machinery Co., Providence, R. I.
 Thompson-Bonney Co., Brooklyn, N. Y.
 Thornton Machinery Co., Providence, R. I.
 Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.
 Jacob Ullman, Buffalo, N. Y.
 Vandryck, Churchill Co., 8 Dey St., N. Y.
 Walsh's Sons & Co., Newark, N. J.
 Wickes Bros., Saginaw, Mich.
 C. C. Wormer Machy. Co., Detroit, Mich.
 Walter A. Zelnicker Supply Co., St. Louis, Mo.

Machinery, Electric Mining—
 General Electric Co., Schenectady, N. Y.
 Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Machinery, Mining—
 (See Mining Machinery.)

Machinery, Pearl Button—
 Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.

Machinery, Second Hand—
 (See Second Hand Machinery.)

Machines, Boring—
 (See Mills, Boring and Turning. See also Boring Machines, Carpenters'.)

Machines, Calculating—
 (See Calculating Machines.)

Machines, Painting and Whitewashing—
 (See Paint and Whitewash Spraying Machines.)

Machines, Pamphlet Stitching—
 R. H. Brown & Co., New Haven, Ct.

Machines, Reckoning—
 (See Adding, Computing and Reckoning Machines.)

Machines, Sewing—
 (See Sewing Machines.)

Machines, Washing—
 (See Washing Machines.)

Machinists' Clamps, Rules, Scrapers, Squares—
 (See Clamps, Rules, Scrapers, Squares.)

Magnesia Products—
 (See Asbestos and Magnesia Products.)

Magnesium—
 Harrison-Walker Refractories Co., Pittsburgh, Pa.
 C. W. Leavitt & Co., 220 Broadway, New York.
 Roessler & Hasslacher Chemical Co., 100 William St., New York.

Magnesium Copper—
 Roessler & Hasslacher Chemical Co., 100 William St., New York.

- Magnet Hammers—**
(See Hammers.)
- Magnet Wire—**
(See Wires, Electrical.)
- Magnetic Separators—**
(See Separators, Magnetic.)
- Magnets, Horseshoe—**
Chas. T. Burlin, Whitinsville, Mass.
Schuchardt & Schutte, 136 Liberty St., New York.
- Mail Boxes, Catchers—**
(See Boxes, Catchers.)
- Malleable Clevises, Hooks and Eyes, Rings—**
(See Clevises, Hooks and Eyes, Rings.)
- Malleable Iron Castings, Hinges—**
(See Castings, Hinges.)
- Mallets, Calking—**
H. Mueller Mfg. Co., Decatur, Ill.
W. & J. Tiebout, 118 Chambers St., N. Y.
- Mallets, Copper—**
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
- Mallets, Rawhide Capped—**
New Process Raw Hide Co., Syracuse, N. Y.
- Mallets, Rubber—**
New York Belting & Packing Co., 91-93 Chambers St., New York.
Osborn Mfg. Co., Cleveland, O.
S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
- Mallets, Wooden—**
Baker, McMillen Co., Wron, O.
Boston & Lockport Black Co., Boston.
E. B. Estes & Sons, 45-47 John St., N. Y.
W. H. Hartigan, Collinsville, Ct.
Osborn Mfg. Co., Cleveland, O.
J. W. Paxson Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Sandusky Tool Co., Sandusky, O.**
John Sommer's Son, Newark, N. J.
Stanley Rule & Level Co., New Britain, Ct.
Union Hardware Co., Torrington, Ct.
Waite, Hamlet & Co., Boston, Mass.
- Man Heads—**
E. Keeler Co., Williamsport, Pa.
Lukens Iron & Steel Co., Coatesville, Pa.
Tudor Boiler Mfg. Co., Cincinnati, O.
- Man Hole Boring Machines—**
(See Boring Machines, Man Hole.)
- Man Hole Castings—**
(See Castings, Man Hole, Cistern, Sewer, &c.)
- Mandrels—**
E. C. Atkins & Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cleveland Twist Drill Co., Cleveland, O.
Henry Disston & Sons, Philadelphia, Pa.
Fairbanks Co., 416 Broome St., New York.
Kinsley Iron & Machine Co., Canton, Mass.
W. G. Le Compt, South Norwalk, Ct.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Pleuger & Henger Mfg. Co., St. Louis, Mo.
Pratt & Whitney Co., Hartford, Ct.
John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.
Standard Tool Co., Cleveland, O.
Wells Bros. Co., Greenfield, Mass.
Western Tool & Mfg. Co., Springfield, O.
- Whitman & Barnes Mfg. Co., Chicago.
Wiley & Russell Mfg. Co., Greenfield, Mass.
- Mandrels, Lathe Expanding—**
Earle Gear & Machine Co., Oxford and Mascher Sts., Philadelphia, Pa.
Wm. G. Le Compt, So. Norwalk, Ct.
Morse Twist Drill & Machine Co., New Bedford, Mass.
- Western Tool & Mfg. Co., Springfield, O.**
- Mandrels, Saw—**
(See Arbors, Circular Saw.)
- Mane Combs—**
(See Combs, Mane and Tail.)
- Manganese—**
Goldschmidt Thermoit Co., 43 Exchange Pl., New York.
C. W. Leavitt & Co., 220 Broadway, New York.
- Roessler & Haaslach Chemical Co., 100 William St., New York.**
- Manganese Bronze Castings, Forgings—**
(See Castings, Forgings, Bronze.)
- Manganese Bronze Ingots—**
(See Ingots.)
- Manganese Copper—**
Roessler & Haaslach Chemical Co., 100 William St., New York.
- Mangers, Feed—**
A. Buch's Sons Co., Elizabethtown, Pa.
Ohio Structural Iron Co., Sandusky, O.
Rock River Mfg. Co., Dixon, Ill.
Warsaw Elevator Co., Warsaw, N. Y.
R. W. Whitehurst Co., Norfolk, Va.
- Manicure Goods—**
H. C. Cook Co., Ansonia, Ct.
Frank Mossberg Co., Attleboro, Mass.
Mossberg Wrench Co., Central Falls, R. I.
Nicholson File Co., Providence, R. I.
Wire Goods Co., Worcester, Mass.
- Manicure Sets—**
(See Sets, Silver Plated.)
- Manicure Sticks—**
(See Sticks, Manicure.)
- Mantel Grates—**
(See Grates.)
- Manual Training School Outfits—**
(See School Outfits, Manual Training.)
- Manufacturing Sites—**
Business Men's Club, Ogden City, Utah.
J. H. Millman & Son, Pittsburgh, Pa.
- Manure Forks, Hooks, Pumps—**
(See Forks, Hooks, Pumps.)
- Marble Working Machinery—**
F. R. Patch Mfg. Co., Rutland, Vt.
- Marine Cableways—**
(See Cableways, Marine.)
- Marine Clocks—**
(See Clocks, Marine.)
- Marine Hardware—**
Marine Hardware & Equipment Co., So. Portland, Me.
A. S. Morse Co., Boston, Mass.
Fullman Mfg. Co., Rochester, N. Y.
W. & J. Tiebout, 118 Chambers St., N. Y.
- Marine Reverse Gears—**
(See Gears, Marine Reverse.)
- Markers, Clayboards—**
Goodell-Pratt Co., Greenfield, Mass.
Otis A. Smith, Rockfall, Ct.
Stanley Rule & Level Co., New Britain, O.

Machinery Dealers—

Geo. E. Affleck, 109 Liberty St., N. Y.
 Baird Machinery Co., Pittsburgh, Pa.
 B. F. Barnes, Rockford, Ill.
 Charles Behlen, 72 Trinity Pl., New York.
 Brown & Zortman Machinery Co., Pittsburgh, Pa.
 Geo. H. Bowler, Cleveland, O.
 Marvin Briggs, 12 Broadway, New York.
 Chandler & Farquhar Co., Boston, Mass.
 Chicago Edison Co., Edison Bldg., Chicago, Ill.
 Chicago House Wrecking Co., W. 35th & Iron Sts., Chicago, Ill.
 Columbus Equipment Co., Columbus, O.
 Thomas P. Conard & Co., 119 S. 4th St., Philadelphia, Pa.
 W. P. Davis Mach. Co., Rochester, N. Y.
 J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 Edward J. Eitting, Harrison Bldg., Philadelphia, Pa.
 Barclay M. Everson, Pittsburgh, Pa.
 Fairbanks Co., 416 Broome St., New York.
 Frevert Machinery Co., 18 Dey St., New York.
 Garvin Machine Co., Spring & Varick Sts., New York.
 Hannan & Flinton, Springfield, Mass.
 Hill, Clarke & Co., Boston, Mass.
 J. H. Hillman & Son, Pittsburgh, Pa.
 Cal. Hirsch & Sons Iron & Rail Co., St. Louis, Mo.
 Henry A. Hiter's Sons, cor. Huntingdon & Aramingo Aves., Philadelphia, Pa.
 C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.
 Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.
 Huntington Machinery & Supply Co., Wilkes-Barre, Pa.
 Irving Mfg. & Tool Co., 157 Chambers St., New York.
 W. C. Johnson & Sons Machinery Co., St. Louis, Mo.
 A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.
 Lovegrove & Co., Inc., 143-145 N. Third St., Philadelphia, Pa.
 Manning, Maxwell & Moore, 55 Liberty St., New York.
 Marshall & Hirschart Machinery Co., 62-64 So. Canal St., Chicago, Ill.
 J. J. McCabe, 14 Dey St., New York.
 McDowell & Co., Allegheny, Pa.
 McDowell, Stocker & Co., 59-61 So. Canal St., Chicago, Ill.
 Henry J. Miller's Sons, Bridgewater, Mass.
 Motch & Merryweather Machinery Co., Cleveland, O.
 New York Machinery Depot, 123 Broadway, New York.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Northern Engineering Works, Detroit, Mich.
 Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.
 Phillips-LaFitte Co., Pennsylvania Bldg., Philadelphia, Pa.
 Pratt & Whitney Co., Hartford, Ct.
 Prentiss Tool & Supply Co., 115 Liberty St., New York.
 William A. Reade & Co., Cleveland, O.
 A. E. Rosenthal, Davenport, Ia.

Rossiter, MacGovern & Co., 17 Battery Pl., New York.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 W. L. Sargent, Fitchburg, Mass.
 Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
 Sebastian Lathe Co., Cincinnati, O.
 L. F. Seyfert's Sons, 437-441 No. 3d St., Philadelphia, Pa.
 Shook & Fletcher, Birmingham, Ala.
 Stiles-Morse Co., Western Union Bldg., Chicago, Ill.
 H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
 Thomas & Lowe Machinery Co., Providence, R. I.
 Thompson-Bonney Co., Brooklyn, N. Y.
 Thornton Machinery Co., Providence, R. I.
 Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.
 Jacob Ullman, Buffalo, N. Y.
 Vandysk, Churchill Co., 8 Dey St., N. Y.
 Walsh's Sons & Co., Newark, N. J.
 Wickes Bros., Saginaw, Mich.
 C. C. Wormer Machy. Co., Detroit, Mich.
 Walter A. Zelnicker Supply Co., St. Louis, Mo.

Machinery, Electric Mining—

General Electric Co., Schenectady, N. Y.
 Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Machinery, Mining—
(See Mining Machinery.)

Machinery, Pearl Button—
 Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.

Machinery, Second Hand—
(See Second Hand Machinery.)

Machines, Boring—
 (See Mills, Boring and Turning. See also Boring Machines, Carpenters'.)

Machines, Calculating—
(See Calculating Machines.)

Machines, Painting and Whitewashing—
 (See Paint and Whitewash Spraying Machines.)

Machines, Pamphlet Stitching—

R. H. Brown & Co., New Haven, Ct.

Machines, Reckoning—
 (See Adding, Computing and Reckoning Machines.)

Machines, Sewing—
(See Sewing Machines.)**Machines, Washing—**
(See Washing Machines.)

Machinists' Clamps, Rules, Scrapers, Squares—
 (See Clamps, Rules, Scrapers, Squares.)

Magnesia Products—
 (See Asbestos and Magnesia Products.)

Magnesium—
 Harrison-Walker Refractories Co., Pittsburgh, Pa.

C. W. Leavitt & Co., 220 Broadway, New York.
 Roessler & Hasslacher Chemical Co., 100 William St., New York.

Magnesium Copper—
 Roessler & Hasslacher Chemical Co., 100 William St., New York.

Magnet Hammers—
(See Hammers.)
Magnet Wire—
(See Wires, Electrical.)
Magnetic Separators—
(See Separators, Magnetic.)
Magnets, Horseshoe—
Chas. T. Hurlin, Whitinsville, Mass.
Schuchardt & Schutte, 136 Liberty St., New York.
Mail Boxes, Catchers—
(See Boxes, Catchers.)
Malleable Clevises, Hooks and Eyes, Rings—
(See Clevises, Hooks and Eyes, Rings.)
Malleable Iron Castings, Hinges—
(See Castings, Hinges.)
Mallets, Calking—
H. Mueller Mfg. Co., Decatur, Ill.
W. & J. Tiebout, 118 Chambers St., N. Y.
Mallets, Copper—
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Mallets, Rawhide Capped—
New Process Raw Hide Co., Syracuse, N. Y.
Mallets, Rubber—
New York Belting & Packing Co., 91-93 Chambers St., New York.
Osborn Mfg. Co., Cleveland, O.
S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
Mallets, Wooden—
Baker, McMillen Co., Akron, O.
Boston & Lockport Block Co., Boston.
E. B. Estes & Sons, 45-47 John St., N. Y.
W. H. Hartigan, Collinsville, Ct.
Osborn Mfg. Co., Cleveland, O.
J. W. Paxson Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Sandusky Tool Co., Sandusky, O.
John Sommer's Son, Newark, N. J.
Stanley Rule & Level Co., New Britain, Ct.
Union Hardware Co., Torrington, Ct.
Waite, Banlet & Co., Boston, Mass.
Man Heads—
E. Keeler Co., Williamsport, Pa.
Lukens Iron & Steel Co., Coatesville, Pa.
Tudor Boiler Mfg. Co., Cincinnati, O.
Man Hole Boring Machines—
(See Boring Machines, Man Hole.)
Man Hole Castings—
(See Castings, Man Hole, Cistern, Sewer, &c.)
Mandrels—
E. C. Atkins & Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cleveland Twist Drill Co., Cleveland, O.
Henry Disston & Sons, Philadelphia, Pa.
Fairbanks Co., 416 Broome St., New York.
Kinsley Iron & Machine Co., Canton, Mass.
W. G. Le Count, South Norwalk, Ct.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Pleuger & Henger Mfg. Co., St. Louis, Mo.
Pratt & Whitney Co., Hartford, Ct.
John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.
Standard Tool Co., Cleveland, O.
Wells Bros. Co., Greenfield, Mass.
Western Tool & Mfg. Co., Springfield, O.

Whitman & Barnes Mfg. Co., Chicago, Wiley & Russell Mfg. Co., Greenfield, Mass.
Mandrels, Lathe Expanding—
Earle Gear & Machine Co., Oxford and Mascher Sts., Philadelphia, Pa.
Wm. G. Le Count, So. Norwalk, Ct.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Western Tool & Mfg. Co., Springfield, O.
Mandrels, Saw—
(See Arbors, Circular Saw.)
Mane Combs—
(See Combs, Mane and Tail.)
Manganese—
Goldschmidt Thermit Co., 43 Exchange Pl., New York.
C. W. Leavitt & Co., 220 Broadway, New York.
Roessler & Hasslacher Chemical Co., 100 William St., New York.
Manganese Bronze Castings, Forgings—
(See Castings, Forgings, Bronze.)
Manganese Bronze Ingots—
(See Ingots.)
Manganese Copper—
Roessler & Hasslacher Chemical Co., 100 William St., New York.
Mangers, Feed—
A. Buch's Sons Co., Elizabethtown, Pa.
Ohio Structural Iron Co., Sandusky, O.
Rock River Mfg. Co., Dixon, Ill.
Warsaw Elevator Co., Warsaw, N. Y.
R. W. Whitehurst Co., Norfolk, Va.
Manicure Goods—
H. C. Cook Co., Ansonia, Ct.
Frank Mossberg Co., Attleboro, Mass.
Mossberg Wrench Co., Central Falls, R. I.
Nicholson File Co., Providence, R. I.
Wire Goods Co., Worcester, Mass.
Manicure Sets—
(See Sets, Silver Plated.)
Manicure Sticks—
(See Sticks, Manicure.)
Mantel Grates—
(See Grates.)
Manual Training School Outfits—
(See School Outfits, Manual Training.)
Manufacturing Sites—
Business Men's Club, Ogden City, Utah.
J. H. Hillman & Son, Pittsburgh, Pa.
Manure Forks, Hooks, Pumps—
(See Forks, Hooks, Pumps.)
Marble Working Machinery—
F. R. Patch Mfg. Co., Rutland, Vt.
Marine Cableways—
(See Cableways, Marine.)
Marine Clocks—
(See Clocks, Marine.)
Marine Hardware—
Marine Hardware & Equipment Co., So. Portland, Me.
A. S. Moss Co., Boston, Mass.
Fullman Mfg. Co., Rochester, N. Y.
W. & J. Tiebout, 118 Chambers St., N. Y.
Marine Reverse Gears—
(See Gears, Marine Reverse.)
Markers, Clabboard—
Goodell-Pratt Co., Greenfield, Mass.
Otis A. Smith, Rockfall, Ct.
Stanley Rule & Level Co., New Britain, Ct.

Markers, Corn and Row-

Bateman Mfg. Co., Grenloch, N. J.
A. Buch's Sons Co., Elizabethtown, Pa.

Markers, Ice-

(See Ice Harvesting Tools.)

Markers, Tires-

Wiley & Russell Mfg. Co., Greenfield, Mass.

Market Wire-

(See Wire, Iron and Steel, &c.)

Marking Gauges-

(See Gauges.)

Marlin Spikes-

(See Spikes, Marlin, Pickers, &c.)

Mashers, Vegetable, &c.-

Erie Specialty Co., Erie, Pa.
Goodell Co., Antrim, N. H.
Handy Things Co., Ludington, Mich.
Wm. R. Hartigan, Collinsville, Ct.
E. E. Kohler & Co., Canton, O.
L. D. Parkhurst, Danielson, Ct.
Pritchard-Strong Co., Rochester, N. Y.
Sandusky Tool Co., Sandusky, O.
John Sommer's Son, Newark, N. J.
A. C. Williams, Ravenna, O.
(See also Kitchen Articles, Wire.)

Masons' Chalk, &c., Lines-

(See Lines, Chalk, &c.)

Match Boxes-

(See Safes, Match.)

Match Boxes, Safes-

(See Boxes, Safes.)

Match Box Holders-

(See Holders, Match Box.)

Matchers, Wood-

Lanc Mfg. Co., Montpelier, Vt.

Material, Old-

Birdsboro Iron & Steel Breaking Co.,
Ltd., Birdsboro, Pa.
M. J. & M. Blake, 97 10th Ave., N. Y.
Bole, Ross & Co., Pittsburgh, Pa.
Geo. H. Bowler, Cleveland, O.
Browning Engineering Co., Cleveland, O.
Calve & Pitt, Real Estate Trust Bldg.,
Philadelphia, Pa.
John W. Cole, Providence, R. I.
Thomas P. Conard & Co., 119 S. 4th St.,
Philadelphia, Pa.
Continental Iron & Steel Co., 66 Broad
St., New York.
Justice Cox, Jr., & Co., Ltd., Land Title
Bldg., Philadelphia, Pa.
Robert M. Cunliffe, 1140-1142 Washington
Ave., Philadelphia, Pa.
Dallett & Co., Harrison Bldg., Philadel-
phia, Pa.
Weston Donaldson, 421 Chestnut St.,
Philadelphia, Pa.
Frevort Machinery Co., 13 Dey St., New
York.
Walter Graham, Harrison Bldg., Phila-
delphia, Pa.
J. H. Hillman & Son, Pittsburgh, Pa.
Cal. Hirsch & Sons Iron & Rail Co., St.
Louis, Mo.
I. C. Hirsch Iron, Steel & Rail Co., Cin-
cinnati, O.
L. K. Hirsch Co., 71 Broadway, New
York.
H. A. Hitner's Son, Huntington St. and
Aramingo Ave., Philadelphia, Pa.
C. E. Houston & Co., Girard Bldg.,
Philadelphia, Pa.
Jos. Joseph & Bros. Co., Cincinnati, O.
A. V. Kaiser & Co., 222 So. 3d St.,
Philadelphia, Pa.
Jerome Keeley & Co., 421 Chestnut St.,
Philadelphia, Pa.

W. K. Kenly Co., First National Bank
Bldg., Chicago, Ill.

Ernest Law & Co., 15th & Market Sts.,
Philadelphia, Pa.

E. B. Leaf & Co., Real Estate Trust
Bldg., Philadelphia, Pa.

Jno. Leonard & Co., 229 Broadway, N. Y.

Henry Lewis & Co., 26 So. 15th St., Phila-
delphia, Pa.

McDowell & Co., Allegheny, Pa.

J. J. Mohr, 131 S. 4th St., Philadelphia.

George J. Newton, Real Estate Trust
Bldg., Philadelphia, Pa.

Nicktown Plate Washer Co., Philadelphia.

Phillips-Laffitte Co., Pennsylvania Bldg.,
Philadelphia, Pa.

Pilling & Crane, Girard Bldg., Philadel-
phia, Pa.

Pittsburgh Pipe & Iron Co., McKees
Rocks, Pa.

Pittsburgh Rail Supply Co., Pittsburgh.

Potts & Wittman, North American Bldg.,
Philadelphia, Pa.

J. Wesley Pullman, 238 S. 3d St., Phila-
delphia, Pa.

William A. Reade & Co., Cleveland O.

Richardson & Co., Inc., Pittsburgh, Pa.

M. H. Rogers, Bridgeport, Ct.

Frank Samuel, 15th and Market Sts.,
Philadelphia, Pa.

Shook & Fletcher, Birmingham, Ala.

Morton B. Smith Co., 213 Front St., N. Y.

Jacob Ullman, Buffalo, N. Y.

Walsh's Sons & Co., Newark, N. J.

Wheeler, Mifflin & Co., Fidelity Bldg.,
Philadelphia, Pa.

Wickes Bros., Saginaw, Mich.

E. H. Wilson & Co., 112 No. Broad St.,
Philadelphia, Pa.

L. & R. Wister & Co., Bullitt Bldg.,
Philadelphia, Pa.

Walter A. Zelnicker Supply Co., St.
Louis, Mo.

Mats and Matting, Leather-

New York Leather Belting Co., 51 Beek-
man St., New York.

Mats and Matting, Rubber-

New York Belting & Packing Co., 91-93
Chambers St., New York.

Mats and Matting, Wire

and Steel-

Buffalo Wire Works Co., Buffalo, N. Y.

Clinton Wire Cloth Co., Clinton, Mass.

Estey Wire Works Co., 59 Fulton St.,
New York.

Glen Mfg. Co., Ellwood City, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Ohio Structural Iron Co., Sandusky, O.

Parker Wire Goods Co., Worcester, Mass.

John P. Smith & Co., New Haven, Ct.

Wire Goods Co., Worcester, Mass.

Mats, Table, Wire-

(See Household Articles, Wire.)

Mattocks-

(See Picks.)

Mattocks, Garden-

American Fork & Hoe Co., Cleveland, O.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Mauls-

Kramer Bros. Foundry Co., Monadnock
Block, Chicago, Ill.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Rock River Mfg. Co., Dixon, Ill.

Solid Steel Tool & Forge Co., Tarentum,
Pa.

A. C. Williams, Ravenna, O.

Meal, Leather, for Dry Tumbling Barrels—

Peckham Mfg. Co., Newark, N. J.

Measures, Board, Lox and Wood—

Chapin-Stephens Co., Pine Meadow, Ct.

Lufkin Rule Co., Saginaw, Mich.

Stanley Rule & Level Co., New Britain, Ct.

Measures, Dry—

W. J. Clark Co., Salem, O.

Richmond Cedar Works, Richmond, Va.

Measures, Linear—

Kenuff & Esser Co., 127 Fulton St., N. Y.

Stanley Rule & Level Co., New Britain, Ct.

Upon Nut Co., Cleveland, O.

Measures, Liquid—

John Chatillon & Sons, 85 Cliff St., N. Y.

Republic Metalware Co., Buffalo, N. Y.

Measures, Tape—

John H. Graham & Co., 113 Chamber St., New York.

Kenuff & Esser Co., 127 Fulton St., N. Y.

Lufkin Rule Co., Saginaw, Mich.

Simonds Mfg. Co., Fitchburg, Mass.

L. S. Starrett Co., Athol, Mass.

Measuring Faucets, Wheels—

(See Faucets, Wheels.)

Measuring Rods, Standard, End—

Brown & Sharpe Mfg. Co., Providence, R. I.

Kenuff & Esser Co., 127 Fulton St., N. Y.

Pratt & Whitney Co., Hartford, Ct.

John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.

J. T. Slocomb Co., Providence, R. I.

Meat and Vegetable Choppers and Cutters—

(See Cutters, Food, Meat and Vegetable.)

Ment Dishes—

(See Dishes, Silver Plated.)

Ment Hooks, Presses—

(See Hooks, Presses.)

Ment Juice Presses—

(See Presses, Fruit and Juice.)

Mechanical Electro Plating Tanks—

(See Tanks, Mechanical Electro Plating.)

Mechanical Rubber Goods—

(See Rubber Goods, Mechanical.)

Menders, Harness—

Root Bros. Co., Plymouth, O.

Menders, Hose—

(See Hose Attachments.)

Menders, Steel Tape—

Eyelet Tool Co., Boston, Mass.

Mending Plates—

(See Plates, Mending.)

Mercantile Cabinet Files—

(See Cabinets, File, Mercantile.)

Merchants, Iron and Steel—

(See Iron and Steel Brokers and Merchants.)

Merchants, Metal—

(See Iron and Steel, Brokers and Merchants.)

Metal, Anti-Friction, Bronze, &c.—

(See Anti-Friction, Bronze, &c.)

Metal Drosses—

(See Drosses, Metal.)

Metal Furniture—

(See Furniture, Metal.)

Metal Goods, Sheet, to Order—

(See Sheet Metal Goods, to Order.)

Metal Lacquers—

(See Lacquers.)

Metal, Platers' or Gold—

Bridgeport Brass Co., 253 B'way, N. Y.

Riverside Metal Co., Riverside, N. J.

Scovill Mfg. Co., Waterbury, Ct.

Metal Polish, Scrubbers—

(See Polish, Scrubbers.)

Metal Shearing to Order—

Avery Stamping Co., Cleveland, O.

Metal Specialties, Ornamental Sheet—

A. N. Clark & Son, Plainville, Ct.

Edwards Mfg. Co., Cincinnati, O.

Glen Rock Stamping Co., Glen Rock, Pa.

Harvey Hubbell, Bridgeport, Ct.

Ira B. Smith, Bristol, Ct.

Metal Specialties to Order—

Advance Mfg. Co., Racine Junction, Wis.

American Tube & Stamping Co., Bridgeport, Ct.

Avery Stamping Co., Cleveland, O.

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Blake & Johnson, Waterbury, Ct.

W. J. Clark & Co., Salem, O.

Crosby Co., Buffalo, N. Y.

Edwards Mfg. Co., Cincinnati, O.

Erie Stamping & Mfg. Co., Erie, Pa.

Gem Mfg. Co., Pittsburgh, Pa.

Glen Rock Stamping Co., Glen Rock, Pa.

Grant Mfg. & Machine Co., Bridgeport, Ct.

Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

R. C. Jeukinson & Co., Newark, N. J.

Kilborn & Bishop Co., New Haven, Ct.

E. Konigslow Stamping & Tool Works, Cleveland, O.

McClellan & Orr, Monadnock Block, Chicago, Ill.

McKinney Mfg. Co., Allegheny, Pa.

H. A. Matthews Mfg. Co., Seymour, Ct.

Frank Mossberg Co., Attleboro, Mass.

Mossberg Wrench Co., Central Falls, R. I.

Ohio Brass Co., Mansfield, O.

Osborn Mfg. Co., Cleveland, O.

Parker Wire Goods Co., Worcester, Mass.

Richmond Forgings Corporation, Richmond, Va.

Arthur T. Rutter & Co., 256 Broadway, New York.

Standard Pressed Steel Co., 20th and Clearfield Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Streator Metal Stamping Co., Streator, Ill.

Tudor Boiler Mfg. Co., Cincinnati, O.

W. & S. Mfg. Co., Worcester, Mass.

Metal Walnscoot—

(See Ceiling and Siding.)

Metal Wheel Machinery—

(See Wheel Machinery, Metal.)

Metal Work, Milled, Turned or Stamped, to Order—

Adell Bros. Mfg. Co., Orange, Mass.

American Tube & Stamping Co., Bridgeport, Ct.

Avery Stamping Co., Cleveland, O.

Blake & Johnson, Waterbury, Ct.

A. N. Clark & Son, Plainville, Ct.

W. J. Clark Co., Salem, O.

Cleveland Wire Spring Co., Cleveland, O.

H. C. Cook Co., Ansonia, Ct.

Davis Mfg. Co., Milwaukee, Wis.

- G. Drouve Co., Bridgeport, Ct.
 Edwards Mfg. Co., Cincinnati, O.
 Erie Stamping & Mfg. Co.,
 Gem Mfg. Co., Pittsburgh, Pa.
 Glen Rock Stamping Co., Glen Rock, Pa.
 Grant Mfg. & Machine Co., Bridgeport,
 Ct.
 Helwig Mfg. Co., St. Paul, Minn.
 Harvey Hubbell, Bridgeport, Ct.
 Hubley Mfg. Co., Lancaster, Pa.
 B. C. Jenkinson & Co., Newark, N. J.
 John R. Keim Mills, Buffalo, N. Y.
 McClernan & Orr, Monadnock Block, Chi-
 cago, Ill.
 Mossberg Wrench Co., Central Falls,
 R. I.
 Arthur T. Rutter & Co., 256 Broadway,
 New York
 Schatz Hardware Mfg. Co., Chappaqua,
 N. Y.
 J. H. Sessions & Son, Bristol, Ct.
 Straight Line Foundry Co., Syracuse,
 N. Y.
- Metal, Yellow—**
 Bridgeport Brass Co., 253 B'way, N. Y.
 J. Brooks Fennel & Co., Boston, Mass.
- Metallic Eyelets, Shingles—**
 (See Eyelets, Shingles.)
- Metals, Perforated Sheet—**
 Clinton Wire Cloth Co., Clinton, Mass.
 Erdle Perforating Co., Rochester, N. Y.
 Harrington & King Perforating Co., 209
 No. Union St., Chicago, Ill.
 Hendrick Mfg. Co., Carbondale, Pa.
 Charles Mundt & Sons, 441-447 Pearl St.,
 New York.
- Metals, Rare, Free from**
Carbon—
 Goldschmidt Thermit Co., 43 Exchange
 Place, New York.
- Meters, Ampere Recording—**
 Bristol Co., Waterbury, Ct.
 General Electric Co., Schenectady, N. Y.
 Westinghouse Electric & Mfg. Co., Pitts-
 burgh, Pa.
 Zucker & Levett & Loeb Co., 526-530 W.
 25th St., New York.
- Meters, Blast—**
 Byram & Co., Inc., Detroit, Mich.
 J. W. Paxson Co., Philadelphia, Pa.
- Meters, Volt Recording—**
 Bristol Co., Waterbury, Ct.
 General Electric Co., Schenectady, N. Y.
 Westinghouse Electric & Mfg. Co., Pitts-
 burgh, Pa.
 Zucker & Levett & Loeb Co., 526-530 West
 25th St., New York.
- Meters, Water—**
 American Valve & Meter Co., Cincin-
 nati, O.
 Builders' Iron Foundry, Providence, R. I.
- Meters, Water Current—**
 Kenuff & Esser Co., 127 Fulton St., N. Y.
- Meters, Watt Recording—**
 Bristol Co., Waterbury, Ct.
 General Electric Co., Schenectady, N. Y.
 Westinghouse Electric & Mfg. Co., Pitts-
 burgh, Pa.
- Mica—**
 Merchant & Evans Co., 517 Arch St.,
 Philadelphia, Pa.
- Micrometer Calipers, Hold-
 ers—**
 (See Calipers, Holders.)
- Micrometers—**
 Athol Machine Co., Athol, Mass.
 Brown & Sharpe Mfg. Co., Providence,
 R. I.
- Davis Mfg. Co., Milwaukee, Wis.
 Massachusetts Tool Co., Greenfield, Mass.
 Pratt & Whitney Co., Hartford, Ct.
 J. T. Slocumb Co., Providence, R. I.
 L. S. Starrett Co., Athol, Mass.
- Micrometers, Paper—**
 Brown & Sharpe Mfg. Co., Providence,
 R. I.
- J. T. Slocumb Co., Providence, R. I.
 L. S. Starrett Co., Athol, Mass.
- Milk Can Stock—**
 Republic Metalware Co., Buffalo, N. Y.
 Sturges & Burn Mfg. Co., Chicago, Ill.
- Milk Cans, Strainers—**
 (See Cans, Strainers.)
- Milkman's Bells—**
 (See Bells, Milkman's.)
- Mill Saws—**
 (See Saws, Mill, Mulay, Crosscut, Drag,
 &c.)
- Mill Wire Goods—**
 (See Wire Goods, Mill.)
- Mill Work, Saw—**
 (See Saw Mill Machinery.)
- Mill Yard Steel Lamps—**
 (See Lamps, Steel Mill Yard, &c.)
- Milled, Turned or Stamped**
Metal Work, to Order—
 (See Metal Work, Milled, Turned or
 Stamped, to Order.)
- Milling and Drilling Ma-
 chines, Butt—**
 F. B. Shuster Co., New Haven, Ct.
- Milling Machine Attach-
 ments—**
 Becker-Brainard Milling Machine Co.,
 Hyde Park, Mass.
 Brown & Sharpe Mfg. Co., Providence,
 R. I.
 Cincinnati Milling Machine Co., Cincin-
 nati, O.
 Fox Machine Co., Grand Rapids, Mich.
 Garvin Machine Co., Spring & Varick Sts.,
 New York.
- Hendey Machine Co., Torrington, Ct.
 Massachusetts Tool Co., Greenfield, Mass.
 Quincy, Manchester, Sargent Co., Old
 Colony Bldg., Chicago, Ill.
 Pratt & Whitney Co., Hartford, Ct.
 Stark Tool Co., Waltham, Mass.
- Milling Machines—**
 Becker-Brainard Milling Machine Co.,
 Hyde Park, Mass.
 E. W. Bliss Co., Brooklyn, N. Y.
 Brown & Sharpe Mfg. Co., Providence,
 R. I.
 Cincinnati Milling Machine Co., Cincin-
 nati, O.
 Asa S. Cook Co., Hartford, Ct.
 Espen Lucas Machine Works, Broad and
 Noble Sts., Philadelphia, Pa.
 Foote Bros. Gear & Machine Co., 23-30 S.
 Clinton St., Chicago, Ill.
 Fox Machine Co., Grand Rapids, Mich.
 Garvin Machine Co., Spring & Varick Sts.,
 New York.
- E. Harrington, Son & Co. (Inc.), Phila-
 delphia, Pa.
 Hendey Machine Co., Torrington, Ct.
 Hilles & Jones Co., Wilmington, Del.
 R. K. Le Blond Machine Tool Co., Cin-
 cinnati, O.
 J. J. McCabe, 14 Dey St., New York.
 Morton Mfg. Co., Muskegon Heights,
 Mich.
 Newton Machine Tool Works, 23 & Vine
 Sts., Philadelphia, Pa.
 Niles-Rement-Fond Co., 111 Broadway,
 New York.

Pratt & Whitney Co., Hartford, Ct.
Quincy, Manchester, Sargent Co., Old
Colony Bldg., Chicago, Ill.
A. D. Quint, Hartford, Ct.
Wm. Sellers & Co. (Inc.), 16th and Ham-
ilton Sts., Philadelphia, Pa.
F. B. Shuster Co., New Haven, Ct.
Dwight Slate Machine Co., Hartford, Ct.
C. E. Sutton Co., Toledo, O.
Stark Tool Co., Waltham, Mass.
Vanderbeck Tool Works, Hartford, Ct.
Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

MERCHANTS.

George E. Affleck, 107 Liberty St., N. Y.
Baird Machinery Co., Pittsburgh, Pa.
Brown & Zortman Machinery Co., Pitts-
burgh, Pa.
Columbus Equipment Co., Columbus, O.
J. H. Dawson Machinery Co., 39 S. Canal
St., Chicago, Ill.
Fairbanks Co., 416 Broome St., New York
Freyer Machinery Co., 18 Dey St., New
York.
Hill, Clarke & Co., Boston, Mass.
Hub Machine & Tool Co., 621-623 Cherry
St., Philadelphia, Pa.
Huntington Machinery & Supply Co.,
Wilkes-Barre, Pa.
Marshall & Husehart Machinery Co., 62-
64 S. Canal St., Chicago, Ill.
McDowell, Stocker & Co., 59 S. Canal St.,
Chicago, Ill.
Motch & Merryweather Machinery Co.,
Cleveland, O.
Patterson, Gottfried & Hunter, Ltd., 148-
150 Center St., New York.
Prentiss Tool & Supply Co., 115 Liberty
St., New York.
H. A. Rogers Co., 19 John St., New York.
W. L. Sargent, Fitchburg, Mass.
H. A. Stocker Machinery Co., 29 S. Clin-
ton St., Chicago, Ill.
Thornton Machinery Co., Providence,
R. I.
Frank Toomey, 127-131 No. 3d St., Phila-
delphia, Pa.
Vandyck, Churchill Co., 8 Dey St., N. Y.
Wicks Bros., Saginaw, Mich.
C. C. Wormer Machinery Co., Detroit,
Mich.

Milling Machines, Bench and Hand—

Becker-Brainard Milling Machine Co.,
Hyde Park, Mass.
Fox Machine Co., Grand Rapids, Mich.
Garvin Machine Co., Spring & Varick
Sts., New York.
Pratt & Whitney Co., Hartford, Ct.
Stark Tool Co., Waltham, Mass.

Milling Machines, Double End—

Becker-Brainard Milling Machine Co.,
Hyde Park, Mass.
Garvin Machine Co., Spring & Varick
Sts., New York.
Hendey Machine Co., Torrington, Ct.
Newton Machine Tool Works, 23d & Vine
Sts., Philadelphia, Pa.
Niles-Bement-Pond Co., 111 Broadway,
New York.
Pratt & Whitney Co., Hartford, Ct.
F. B. Shuster Co., New Haven, Ct.

Milling Machines, Keysent—

John T. Burr & Sons, Brooklyn, N. Y.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Milling Machines, Nut and Bolt Head—

Niles-Bement-Pond Co., 111 Broadway,
New York.

Pratt & Whitney Co., Hartford, Ct.
Dwight Slate Machine Co., Hartford, Ct.

Milling Machines, Oscillating—

Hendey Machine Co., Torrington, Ct.

Milling Machines, Portable—

Niles-Bement-Pond Co., 111 Broadway,
New York.

H. B. Underwood & Co., 1025 Hamilton
St., Philadelphia, Pa.

Milling Machines, Test Piece—

Espen-Lucas Machine Works, Broad and
Noble Sts., Philadelphia, Pa.

Newton Machine Tool Works, 23d & Vine
Sts., Philadelphia, Pa.

Milling Machines, Turret—

A. D. Quint, Hartford, Ct.

Milling Machines, Universal—

Becker-Brainard Milling Machine Co.,
Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Cincinnati Milling Machine Co., Cin-
cinnati, O.

Foots Bros. Gear & Machine Co., 24-30
S. Clinton St., Chicago, Ill.

Garvin Machine Co., Spring & Varick Sts.,
New York.

Hendey Machine Co., Torrington, Ct.
R. K. Le Blond Machine Tool Co.,
Cincinnati, O.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Milling Machines, Vertical—

Becker-Brainard Milling Machine Co.,
Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Fox Machine Co., Grand Rapids, Mich.
Garvin Machine Co., Spring & Varick Sts.,
New York.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Hilles & Jones Co., Wilmington, Del.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Pratt & Whitney Co., Hartford, Ct.

Mills, Adjustable Hollow—

Geometric Tool Co., New Haven, Ct.
Morse Twist Drill & Machine Co., New
Bedford, Mass.

John M. Rogers Boat, Gauge & Drill
Works, Gloucester City, N. J.

Mills, Blooming—

(See Blooming Mills.)

Mills, Bone—

Adam's Steel & Wire Works, Joliet, Ill.
C. O. Bartlett & Snow Co., Cleveland, O.

Enterprise Mfg. Co., Philadelphia, Pa.

Mills, Boring and Turning—

R. F. Barnes Co., Rockford, Ill.
Baush Machine Tool Co., Springfield,
Mass.

Betts Machine Co., Wilmington, Del.
Bickford Drill & Tool Co., Cincinnati, O.

E. W. Bliss Co., Brooklyn, N. Y.
Hullard Mch. Tool Co., Bridgeport, Ct.

Colburn Machine Tool Co., Franklin, Pa.
Detrick & Harvey Machine Co., Balti-
more, Md.

Espen-Lucas Machine Works, Broad and
Noble Sts., Philadelphia, Pa.

- Fox Machine Co., Grand Rapids, Mich.
 E. Harrington, Son & Co. (Inc.), Philadelphia, Pa.
 Hoefler Mfg. Co., Freeport, Ill.
 New Haven Mfg. Co., New Haven, Ct.
 Newton Machine Tool Works, 23d and Vine Sts., Philadelphia, Pa.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Pawling & Harnischfeger, Milwaukee, Wis.
 Pratt & Whitney Co., Hartford, Ct.
 Wm. Sellers & Co. (Inc.), 16th and Hamilton Sts., Philadelphia, Pa.
 Whitecomb-Blaisdell Machine Tool Co., Worcester, Mass.
- MERCHANTS.**
 George E. Affleck, 107 Liberty St., N. Y.
 Baird Machinery Co., Pittsburgh, Pa.
 Brown & Zortman Machinery Co., Pittsburgh, Pa.
 Columbus Equipment Co., Columbus, O.
 J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 Fairbanks Co., 416 Broome St., New York.
 Frevert Machinery Co., 18 Dey St., New York.
 Hill, Clarke & Co., Boston, Mass.
 Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.
 Manning, Maxwell & Moore, 85 Liberty St., New York.
 Marshall & Huchart Machinery Co., 62-64 S. Canal St., Chicago, Ill.
 McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.
 Motch & Merryweather Machinery Co., Cleveland, O.
 New York Machinery Depot, 120 Broadway, New York.
 Prentiss Tool & Supply Co., 115 Liberty St., New York.
 H. A. Rogers Co., 19 John St., New York.
 W. L. Sargent, Fitchburg, Mass.
 Thornton Machinery Co., Providence, R. I.
 Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.
 Vandeyck, Churchill Co., 8 Dey St., N. Y.
 Wickes Bros., Saginaw, Mich.
- Mills, Car Wheel Boring—**
 Betts Machine Co., Wilmington, Del.
 Bickford Drill & Tool Co., Cincinnati, O.
 Colburn Machine Tool Co., Franklin, Pa.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Wm. Sellers & Co. (Inc.), 16th and Hamilton Sts., Philadelphia, Pa.
- Mills, Cider—**
 Cutaway Harrow Co., Higganum, Ct.
 It. W. Whitehurst Co., Norfolk, Va.
- Mills, Cinder—**
 Byram & Co. Inc., Detroit, Mich.
 Boyersford Foundry & Machine Co., Boyersford, Pa.
- Mills, Clay Grinding—**
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Mills, Coffee, Spice, &c.—**
 Arcade Mfg. Co., Freeport, Ill.
 Bronson-Walton Co., Cleveland, O.
 John Chatillon & Sons, 85 Cliff St., N. Y.
 Enterprise Mfg. Co., Philadelphia, Pa.
 Fairbanks Co., 416 Broome St., New York.
 Fanner Mfg. Co., Cleveland, O.
 Landers, Frary & Clark, New Britain, Ct.
 Lane Bros. Co., Poughkeepsie, N. Y.
 Charles Parker Co., Meriden, Ct.
- Peck, Stow & Wilcox Co., 7 Murray St., New York.
 R. W. Whitehurst Co., Norfolk, Va.
- Mills, Continuous Billet, Rod, Hoop, Cotton Tie and Merchant Bar—**
 Morgan Construction Co., Worcester, Mass.
- Mills, Corn and Feed—**
 Adam's Steel & Wire Works, Joliet, Ill.
 C. O. Bartlett & Snow Co., Cleveland, O.
 Case Mfg. Co., Columbus, O.
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.
 Enterprise Mfg. Co., Philadelphia, Pa.
 S. Freeman & Sons Mfg. Co., Racine, Wis.
- Lane Bros. Co., Poughkeepsie, N. Y.
 Monarch Grubber Co., Lone Tree, Ia.
 It. W. Whitehurst Co., Norfolk, Va.
- Mills, Linseed Oil—**
 Chas. F. Simes Engineering Works, 233-259 Fulton St., Chicago, Ill.
- Mills, Drug—**
 John Chatillon & Sons, 85 Cliff St., N. Y.
 Enterprise Mfg. Co., Philadelphia, Pa.
 Landers, Frary & Clark, New Britain, Ct.
 Lane Bros. Co., Poughkeepsie, N. Y.
 Charles Parker Co., Meriden, Ct.
- Mills, End—**
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Cleveland Twist Drill Co., Cleveland, O.
 Morse Twist Drill & Machine Co., New Bedford, Mass.
- Pratt & Whitney Co., Hartford, Ct.
 Standard Tool Co., Cleveland, O.
 Union Twist Drill Co., Athol, Mass.
- Mills, Fly Wheel Boring—**
 Colburn Machine Tool Co., Franklin, Pa.
- Mills, For Rolling Tin Foil—**
 Blake & Johnson, Waterbury, Ct.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
- Mills, Lath and Stave—**
 Wickes Bros., Saginaw, Mich.
- Mills, Paint—**
 C. O. Bartlett & Snow Co., Cleveland, O.
- Mills, Rod Tapering—**
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
- Mills, Vertical Turning and Boring—**
 Bullard Machine Tool Co., Bridgeport, Ct.
 Colburn Machine Tool Co., Franklin, Pa.
 Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.
 Niles-Bement-Pond Co., 111 Broadway, New York.
- Mills, Wind—**
 W. E. Caldwell Co., Louisville, Ky.
 S. Freeman & Sons Mfg. Co., Racine, Wis.
- Mast, Foos & Co., Springfield, O.
- Mills, Wire Flattening—**
 Blake & Johnson, Waterbury, Ct.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
- Mills, with Inserted Teeth—**
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Morse Twist Drill & Machine Co., New Bedford, Mass.
- Pratt & Whitney Co., Hartford, Ct.
- Millwrights—**
 American Tool & Machine Co., Boston.
 Humphrey Machine Co., Keene, N. H.

Mining Knives—

(See Knives, Mining.)

Mine Car Hitchings—

(See Couplings, Mine Car.)

Mine Supplies—

Broderick & Bascom Rope Co., St. Louis,
Chrome Steel Works, Chrome, N. J.
Interstate Engineering Co., Bedford, O.
Jeffrey Mfg. Co., Columbus, O.
A. Leschen & Sons Rope Co., St. Louis
Charles Mundt & Sons, 441-447 Pearl St.,
New York.

Wellman-Seaver-Morgan Co., Cleveland, O.

MERCHANTS.

H. A. Rogers Co., 19 John St., New York.

Mineral Lands—

American Business Opportunity Co., 150
Nassau St., New York.

Miners' Lamps—

(See Lamps, Miners'.)

Mining Machinery—

Allentown Rolling Mills, Allentown, Pa.
Birdsboro Steel Foundry & Machine Co.,
Birdsboro, Pa.

Browning Engineering Co., Cleveland, O.
Charter Gas Engine Co., Sterling, Ill.
Chicago Pneumatic Tool Co., Fisher
Bldg., Chicago, Ill.

Farral Foundry & Mach. Co., Ansonia, Ct.
Fawcett Machine Co., Pittsburgh, Pa.
Ingersoll-Rand Co., 11 Broadway, New
York.

Interstate Engineering Co., Bedford, O.
Jeffrey Mfg. Co., Columbus, O.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
Fred M. Prescott Steam Pump Co., Mil-
waukee, Wis.

Robins Conveying Belt Co., Park Row
Bldg., New York.

John M. Rogers Boat, Gauge & Drill
Works, Gloucester City, N. J.
Standard Car & Foundry Co., Pittsburgh,
Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

MERCHANTS.

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

Mining Machines, Electric—

General Electric Co., Schenectady, N. Y.

Mirror Frames—

(See Frames, Mirror, Photograph, Metal.)

Mirrors—

Geo. S. Knapp, Bridgeport, Ct.

Miscellaneous Rules—

(See Measures, Board, Log and Wood.)

Miter Boxes, Rods—

(See Boxes, Rods.)

Miter Planers—

(See Planers, Miter.)

Miter Squares—

(See Squares, Try.)

Miters, Eave Trough—

Berger Bros. Co., 231-237 Arch St. Phila-
delphia, Pa.

Berger Mfg. Co., Canton, O.

Edwards Mfg. Co., Cincinnati, O.

Reeves Mfg. Co., Canal Dover, O.

Mixers, Concrete—

II. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

Thos. Carlin's Sons, Allegheny, Pa.

Link-Belt Engineering Co., Nicetown,
Philadelphia, Pa.

Pittsburgh Industrial Iron Works, Pitts-
burgh, Pa.

**Mixers, Concrete, Blades
for—**

Taylor Iron & Steel Co., High Bridge,
N. J.

Landers, Frary & Clark, New Britain, Ct.
Pritchard-Strong Co., Rochester, N. Y.

Mixers, Dough—

Landers, Frary & Clark, New Britain, Ct.
Pritchard-Strong Co., Rochester, N. Y.

Mixers, Natural Gas—

Hollands Mfg. Co., Erie, Pa.

Mixers, Paint—

Poole Engineering & Machine Co., Balti-
more, Md.

Mixers, Plastic Slate—

F. H. Evans, Brooklyn, N. Y.

Mixing Machines, Sand—

Barbour-Stockwell Co., Cambridgeport,
Mass.

Gould & Eberhardt, Newark, N. J.

Jeffrey Mfg. Co., Columbus, O.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

Wm. Sellers & Co. (Inc.), Philadelphia.

**Model and Experimental
Work—**

Adell Bros. Mfg. Co., Orange, Mass.

Adriance Machine Works, Brooklyn, N. Y.

Baird Machine Co., Oakville, Ct.

R. H. Brown & Co., New Haven, Ct.

Cleveland Galvanizing Works, Cleveland,
O.

H. H. Franklin Mfg. Co., Syracuse,
N. Y.

Wm. Gardam & Son, Inc., 45-51 Rose St.,
New York.

Odwin & Kintz Co., Winsted, Ct.

Grant Mfg. & Machine Co., Bridgeport,
Ct.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Kilborn & Bishop Co., New Haven, Ct.

E. Kousslow Stamping & Tool Works,
Cleveland, O.

Frank Mossberg Co., Attleboro, Mass.

Mount Carmel Bolt Co., Mt. Carmel, Ct.

Myrick Machine Co., Olean, N. Y.

Nazel Engineering & Machine Works,
Ridge Ave. & 11th St., Philadelphia.

New Machine Co., Danbury, Ct.

Pratt & Whitney Co., Hartford, Ct.

Richmond Forgings Corporation, Rich-
mond, Va.

J. J. Ryan & Co., 63-74 W. Monroe St.,
Chicago, Ill.

Ira B. Smith, Bristol, Ct.

Stamping & Tool Co., La Crosse, Wis.

Webster & Perkà Tool Co., Springfield, O.

York Pattern Works, York, Pa.

Modillions, Moldings, &c.—

(See Architectural Sheet Metal Work.)

Molasses Gates—

(See Gates, Oil and Molasses.)

Molded Rubber Goods—

(See Rubber Goods, Mechanical.)

Molders' Bellows—

(See Bellows, Blacksmiths', &c.)

Molders' Tools—

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleve-
land, O.

Molding, Hip—

(See Architectural Sheet Metal Work.)

**Molding Machines, Car
Wheel—**

E. H. Mumford Co., 17th & Calhoun
Sta., Philadelphia, Pa.

Henry E. Fridmore, Chicago, Ill.

Molding Machines, Foundry.

Arcade Mfg. Co., Freeport, Ill.
 E. H. Mumford Co., 17th & Callowhill
 Sts., Philadelphia, Pa.
 S. Obermayer Co., Cincinnati, O.
 J. W. Paxson Co., Philadelphia, Pa.
 Power Specialty Co., 111 Broadway, New
 York
 Henry E. Pridmore, Chicago, Ill.
 Taylor-Wilson Mfg. Co., McKees Rocks,
 Pa.
 Webster & Perks Tool Co., Springfield,
 Mass.
 Whiting Foundry Equipment Co., Harvey,
 Ill.

Molding Machines, Pulley—
 E. H. Mumford Co., 17th & Callowhill
 Sts., Philadelphia, Pa.
 Henry E. Pridmore, Chicago, Ill.

Molding Machines, Stone—
 F. R. Patch Mfg. Co., Rutland, Vt.

Molding Machines, Wood—
 W. F. & John Barnes Co., Rockford, Ill.
 Defiance Machine Works, Defiance, O.
 Oliver Machinery Co., Grand Rapids,
 Mich.

Louis E. Reichtin & Bro., Cincinnati, O.
 Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Molding Sand—
 (See Sand, Molding.)

Moldings, Brass—
 Bridgeport Brass Co., 233 B'way, N. Y.

Moldings, Wood—
 E. B. Estes & Sons, 45-47 John St., New
 York

Molds, For Casting Metals—
 H. Mueller Mfg. Co., Decatur, Ill.
 Schwerdtle Stamp Co., Bridgeport, Ct.

Molds, Glass—
 Wheeling Mold & Foundry Co., Wheel-
 ing, W. Va.

Molds, Ingot—
 Reed F. Blair & Co., Pittsburgh, Pa.
 Carnegie Steel Co., Pittsburgh, Pa.
 J. W. Paxson Co., Philadelphia, Pa.
 Philadelphia Tool & Machine Co., 23d St.
 & Washington Ave., Philadelphia, Pa.
 Wheeling Mold & Foundry Co., Wheel-
 ing, W. Va.

Molds, Solder—
 John C. Kuperle, St. Louis, Mo.

Mole Traps—
 (See Traps, Mole.)

Molybdenum—
 Goldschmidt Thermit Co., 43 Exchange
 Pl., New York.

Rössler & Hasselcher Chemical Co., 100
 William St., New York

Molybdenum-Nickel—
 Geo. G. Blackwell, Sons & Co., Liver-
 pool, England.

Money Drawers—
 (See Tills, Alarm.)

Monitor Heads for Lathes—
 W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Monograms, Automobile—
 Schwerdtle Stamp Co., Bridgeport, Ct.

Monotype Metal—
 Theo. Hertz Metal Co., St. Louis, Mo.

Mops, Mon Sticks, &c.—
 Arcade Mfg. Co., Freeport, Ill.

Wm. H. Curtis, Woburn, Mass.
 Eagle Copperage Works, Circleville, O.
 Estes Mills, Fall River, Mass.
 F. E. Kohler & Co., Canton, O.
 National Handle Co., Cleveland, O.
 Reading Hardware Co., Reading, Pa.

Mortar Hoes, Hoists—

(See Hoes, Hoists.)

Mortisars, Hollow Chisel—
 Defiance Machine Works, Defiance, O.
 Greenlee Bros. & Co., Rockford, Ill.

Mortising Machines—
 W. F. & John Barnes Co., Rockford, Ill.
 Gould & Eberhardt, Newark, N. J.
 Oliver Machinery Co., Grand Rapids,
 Mich.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Mosquito Nettings—
 (See Nettings, Mosquito.)

Motor Boat Hardware—
 A. S. Morris Co., Boston, Mass.

Motor Springs—
 (See Springs, Motor.)

Motor Trucks—
 (See Automobile Trucks.)

Motors, Compressed Air—
 Chicago Pneumatic Tool Co., Fisher
 Bldg., Chicago, Ill.

Chisholm & Moore Mfg. Co., Cleveland, O.
 General Pneumatic Tool Co., Montour
 Falls, N. Y.

Helwig Mfg. Co., St. Paul, Minn.
 Ingersoll-Rand Co., 11 Broadway, New
 York

Quincy, Manchester, Sargent Co., Old
 Colony Bldg., Chicago, Ill.

Stow Flexible Shaft Co., 26th and Callow-
 hill Sts., Philadelphia, Pa.

Westinghouse Electric & Mfg. Co., Pitts-
 burgh, Pa.

Motors, Electric—
 Browning Engineering Co., Cleveland, O.

C. & C. Electric Co., Garwood, N. J.
 Jas. Clark, Jr. & Co., Louisville, Ky.

Crocker-Wheeler Co., Ampere, N. J.
 General Electric Co., Schenectady, N. Y.

Jeffrey Mfg. Co., Columbus, O.
 National Electric Co., Milwaukee, Wis.

Northern Electrical Mfg. Co., Madison,
 Wis.

Ridgway Dynamo & Engine Co., Ridgway,
 Pa.

Sheffield Car Co., Three Rivers, Mich.

Sprague Electric Co., 527 W. 34th St.,
 New York

Stow Mfg. Co., Binghamton, N. Y.

E. F. Sturtevant Co., Boston, Mass.

Westinghouse Electric & Mfg. Co., Pitts-
 burgh, Pa.

MERCHANTS.

Charles Behlen, 72 Trinity Pl., New York.
 Case Mfg. Co., Columbus, O.

Chicago Edison Co., Edison Bldg., Chi-
 cago, Ill.

John W. Cole, Providence, R. I.

Charles E. Dustin Co., 11 Broadway,
 New York

McDowell & Co., Allegheny, Pa.

Marshall & Huschart Machinery Co., 62
 S. Canal St., Chicago, Ill.

Rossiter, MacGovern & Co., Inc., 141
 Broadway, New York

L. F. Seyfert's Sons, 437-441 N. 3d St.,
 Philadelphia, Pa.

Thompson-Bonney Co., Brooklyn, N. Y.

Frank Toomey, 127-131 No. 3d St., Phila-
 delphia, Pa.

Jacob Ullman, Buffalo, N. Y.

Walsh's Sons & Co., Newark, N. J.

Wickes Bros., Saginaw, Mich.

Yeareley & Levene, 305 N. 3d St., Phila-
 delphia, Pa.

Motors, Electric Fan—
 General Electric Co., Schenectady, N. Y.

W. R. Ostrander & Co., 22 Dey St., N. Y.
Sprague Electric Co., 527 W. 34th St.,
New York.

B. F. Sturtevant Co., Boston, Mass.
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Motors, Gasoline—
(See Engines, Gas and Gasoline.)

Motors, Steam Turbine—
De Laval Steam Turbine Co., Trenton,
N. J.
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Motors, Water—
Divine Water Motor Co., 106-110 Duane
St., New York.

Humphreys Mfg. Co., Mansfield, O.
Ira B. Smith, Bristol, Ct.

**Mountings, Automobile and
Carriage—**
Walter W. Woodruff & Sons Co., Mount
Carmel, Ct.

Mountings, Fishing Rod—
Clark, Horrocks Co., Utica, N. Y.

Mouse Traps—
(See Traps, Rat and Mouse.)

Movers, Car—
(See Pushers, Car.)

Movers, House—
John Eichleay, Jr., Co., Pittsburgh, Pa.

Movers, Piano—
Sycamore Wagon Works, Sycamore, Ill.

Mowers, Lawn—
American Die & Tool Co., Reading, Pa.
Blair Mfg. Co., Springfield, Mass.

Clipper Lawn Mower Co., Dixon, Ill.
Coldwell Lawn Mower Co., Newburg, N.Y.

Enterprise Mfg. Co., Philadelphia, Pa.
Globe Lawn Mower & Mfg. Co., Reading,
Pa.

Granite State Mowing Machine Co., Hine-
dale, N. H.

Lawson Mfg. Co., 40 Dearborn St., Chi-
cago, Ill.

Mast, Foos & Co., Springfield, O.
Ney Mfg. Co., Canton, O.

Philadelphia Lawn Mower Co., 3100-3102
Chestnut St., Philadelphia, Pa.

Supplee Hardware Co., Philadelphia, Pa.
S. P. Townsend & Co., Orange, N. J.

Whitman & Barnes Mfg. Co., Chicago.
Worcester Lawn Mower Co., Worcester,
Mass.

Mowing Machines—
Granite State Mowing Machine Co., Hine-
dale, N. H.

Muck Bars—
(See Bars, Muck.)

Mud Guards—
(See Dashes and Fenders, Carriage, Auto-
mobile, &c.)

Mutlers, Annealing—
Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Mule and Horse Shoes—
(See Shoes, Horse, and Mule.)

Muley Saws—
(See Saws, Crosscut, Drag, Mill, &c.)

Music Desk Springs—
(See Braces, Music Rack.)

Muzzles—
Edward Darby & Sons, 233-235 Arch St.,
Philadelphia, Pa.

Ludlow-Sayre Wire Co., St. Louis, Mo.
Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

**Nail Bins, Claws, Chippers,
Pullers, &c.—**

(See Bins, Claws, Chippers, Pullers, &c.)

Nail Dishes—
(See Cups, Nail.)

Nail Keys—
(See Keys, Nail, Bolt, Nut, &c.)

Nail Machines, Cut—
Kimball Bros. & Sprague, Brockton, Mass.

Nail Machines, Furniture—
Blake & Johnson, Waterbury, Ct.

Nail Machines, Shoe—
Kimball Bros. & Sprague, Brockton, Mass.
Henry Perkins Co., Bridgewater, Mass.

Nail Machines, Wire—
Blake & Johnson, Waterbury, Ct.
Ford & Donnelly, Kokomo, Ind.

Kimball Bros. & Sprague, Brockton,
Mass.

H. J. Miller's Sons, Bridgewater, Mass.
National Machinery Co., Tiffin, O.

Henry Perkins Co., Bridgewater, Mass.
Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Walton & Macke, Kokomo, Ind.

Nail Pullers—
(See Pullers, Nail.)

**Nails and Studs, Ornamen-
tal—**

Yale & Towne Mfg. Co., 9-15 Murray St.,
New York.

Nails and Tacks, Brass—
U. T. Hungerford Brass & Copper Co.,
497-505 Pearl St., New York.

Nails and Tacks, Brush—
Cobb & Drew, Plymouth, Mass.

Globe Mfg. Co., Taunton, Mass.
Grand Crossing Tack Co., Grand Crossing,
Ill.

E. Phillips & Sons, South Hanover, Mass.
Ripley & Bartlett, Plymouth, Mass.

Shelton Co., Shelton, Ct.
C. C. & E. P. Townsend Co., New Brien-
ton, Pa.

Nails and Tacks, Copper—
Blake & Johnson, Waterbury, Ct.

Cobb & Drew, Plymouth, Mass.
Globe Mfg. Co., Taunton, Mass.

Grand Crossing Tack Co., Grand Crossing,
Ill.

U. T. Hungerford Brass & Copper Co.,
497-505 Pearl St., New York.

E. Phillips & Sons, South Hanover,
Mass.

Shelton Co., Shelton, Ct.

Nails and Tacks, Trunk—
Cobb & Drew, Plymouth, Mass.

Grand Crossing Tack Co., Grand Crossing,
Ill.

E. Phillips & Sons, South Hanover, Mass.
Ripley & Bartlett, Plymouth, Mass.

Shelton Co., Shelton, Ct.

Nails, Boat—
Ripley & Bartlett, Plymouth, Mass.

Nails, Boat, Galvanized—
Keystone Nail Co., Washington Ave. above
16th St., Philadelphia, Pa.

W. & J. Tiebout, 118 Chambers St., N. Y.

Nails, Chair—
Grand Crossing Tack Co., Grand Crossing,
Ill.

Nails, Clear Box—
Grand Crossing Tack Co., Grand Crossing,
Ill.

C. C. & E. P. Townsend Co., New Brien-
ton, Pa.

Nails, Clout—

Cobb & Drew, Plymouth, Mass.
Grand Crossing Tack Co., Grand Crossing, Ill.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
E. Phillips & Sons, South Hanover, Mass.
Ripley & Bartlett, Plymouth, Mass.
Shelton Co., Shelton, Ct.

Nails, Coated—

J. O. Pearson Co., Boston, Mass.

Nails, Copper Shoe—

(See Nails and Tacks, Copper.)

Nails, Copper Wire—

(See Nails and Tacks, Copper.)

Nails, Copper Slating—

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Nails, Corrugated—

Globe Mfg. Co., Taunton, Mass.
Ripley & Bartlett, Plymouth, Mass.
Shelton Co., Shelton, Ct.

Nails, Countersunk Head—

Globe Mfg. Co., Taunton, Mass.
Ripley & Bartlett, Plymouth, Mass.
Shelton Co., Shelton, Ct.

C. C. & E. P. Townsend Co., New Brighton, Pa.

Nails, Cut—

La Belle Iron Works, Steubenville, O.
H. J. Miller's Sons, Bridgewater, Mass.

Nails, Fender—

H. O. Canfield Co., Bridgeport, Ct.
Grand Crossing Tack Co., Grand Crossing, Ill.

Nails, Galvanized—

Cleveland Galvanizing Works, Cleveland, Ohio.
Keystone Nail Co., Philadelphia, Pa.
Shelton Co., Shelton, Ct.

W. & J. Tiebout, 118 Chambers St., N. Y.
C. C. & E. P. Townsend Co., New Brighton, Pa.

United Galvanizing Co., 525-529 W. Front St., Philadelphia, Pa.

Nails, Hob—

Ripley & Bartlett, Plymouth, Mass.
Louis Sacks, Newark, N. J.
Shelton Co., Shelton, Ct.

Nails, Horseshoe—

Capewell Horse Nail Co., Hartford, Ct.
Fowler Nail Co., Seymour, Ct.
H. J. Miller's Sons, Bridgewater, Mass.
Wiebusch & Hilger, 9-15 Murray St., N. Y.

Nails, Last—

Globe Mfg. Co., Taunton, Mass.
Grand Crossing Tack Co., Grand Crossing, Ill.

E. Phillips & Sons, South Hanover, Mass.

Nails, Picture—

Globe Mfg. Co., Taunton, Mass.
Ossawan Mills Co., Norwich, Ct.
Parker Wire Goods Co., Worcester, Mass.

Nails, Saddle and Lining—

Grand Crossing Tack Co., Grand Crossing, Ill.
Shelton Co., Shelton, Ct.

Nails, Sheathing and Roofing—

Grand Crossing Tack Co., Grand Crossing, Ill.
E. Phillips & Sons, South Hanover, Mass.
C. C. & E. P. Townsend Co., New Brighton, Pa.

Nails, Shoe, Cobblers', Channel, &c.—
Globe Mfg. Co., Taunton, Mass.

Grand Crossing Tack Co., Grand Crossing, Ill.

H. J. Miller's Sons, Bridgewater, Mass.
E. Phillips & Sons, South Hanover, Mass.
Ripley & Bartlett, Plymouth, Mass.
Shelton Co., Shelton, Ct.

Nails, Tinned—

C. C. & E. P. Townsend Co., New Brighton, Pa.

Nails, Upholsterers'—

American Ring Co., Waterbury, Ct.
Ossawan Mills Co., Norwich, Ct.
Parker Wire Goods Co., Worcester, Mass.

Nails, Wagon Hinge, &c.—

Grand Crossing Tack Co., Grand Crossing, Ill.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

C. C. & E. P. Townsend Co., New Brighton, Pa.

Nails, Wire—

American Screw Co., Providence, R. I.
Dillon-Griswold Wire Co., Sterling, Ill.
Globe Mfg. Co., Taunton, Mass.

Grand Crossing Tack Co., Grand Crossing, Ill.

John Hassall, Brooklyn, N. Y.
Lawrence Bros., Sterling, Ill.
Ludlow-Saylor Wire Co., St. Louis, Mo.

H. J. Miller's Sons, Bridgewater, Mass.
Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven, Ct.

Parker Wire Goods Co., Worcester, Mass.
Pittsburgh Steel Co., Pittsburgh, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

E. H. Titchener & Co., Binghamton, N. Y.
C. C. & E. P. Townsend Co., New Brighton, Pa.

Wickwire Bros., Cortland, N. Y.
Wire Goods Co., Worcester, Mass.

Nails, Wire, Brass—

John Hassall, Brooklyn, N. Y.

Nails, Wire, Copper—

John Hassall, Brooklyn, N. Y.

Name Plates—

(See Plates, Name.)

Napkin Rings—

(See Rings, Napkin, Silver Plated.)

Natural Gas Burners—

(See Burners, Natural Gas.)

Natural Gas Pumps—

(See Pumps, Natural Gas.)

Navy and Army Scales—

(See Scales, Army and Navy.)

Needle Bar Stock—

National Wire Corporation, New Haven, Ct.

Needle Wire—

(See Wire, Needle.)

Needles, Knitting Machine—

Excelsior Needle Co., Torrington, Ct.

Needles, Open or Welded Handle—

Hubbard & Co., Pittsburgh, Pa.

Needles, Sail Makers' Packing, &c.—

Schunhardt & Schutte, 136 Liberty St., New York.

W. & J. Tiebout, 118 Chambers St., N. Y.

Needles, Seine, Wood—

E. B. Estes & Sons, 45-47 John St., N. Y.

Needles, Sewing Machine—

Excelsior Needle Co., Torrington, Ct.

Needles, Wax Thread—

Excelsior Needle Co., Torrington, Ct.

- Nests, Hens', &c.**
 Gilbert & Bennett Mfg. Co., 277 Broadway, New York.
 Ludlow-Saylor Wire Co., St. Louis, Mo.
 Wickwire Bros., Cortland, N. Y.
- Nets, Fish Landing—**
 Clark, Horrocks Co., Utica, N. Y.
- Nets, Scoop—**
 W. & J. Tiebout, 118 Chambers St., N. Y.
- Nets, Scoop, Ice—**
 (See Ice Harvesting Tools.)
- Netting, Minnow—**
 I. E. Palmer, Middletown, Ct.
- Netting, Rope—**
 A. S. Morris Co., Boston, Mass.
- Netting, Wire—**
 Buffalo Wire Works Co., Buffalo, N. Y.
 Clinton Wire Cloth Co., Clinton, Mass.
 Estey Wire Works Co., 59 Fulton St., New York.
 Gilbert & Bennett Mfg. Co., 277 Broadway, New York.
 Howard & Morse, 45 Fulton St., N. Y.
 Ludlow-Saylor Wire Co., St. Louis, Mo.
 Michigan Wire Cloth Co., Detroit, Mich.
 New Jersey Wire Cloth Co., Trenton, N. J.
 W. S. Tyler Co., Cleveland, O.
 Wickwire Bros., Cortland, N. Y.
 Wright Wire Co., Worcester, Mass.
 (See also Fencing, Poultry.)
- Nettings, Canopy, Horsefly and Mosquito—**
 I. E. Palmer, Middletown, Ct.
- Nickel—**
 American Metal Co., 52 Broadway, N. Y.
 Hermann Boker & Co., 101-103 Duane St., New York.
 Hanson & Van Winkle Co., Newark, N. J.
 Orford Copper Co., 43 Exchange Pl., N. Y.
 Waite, Ranlet & Co., Boston, Mass.
- Nickel Alloys—**
 (See Alloys, Nickel.)
- Nickel, Electro Plated—**
 (See Plating, Electro, Nickel, &c.)
- Nickel Plating—**
 (See Plating, Nickel.)
- Nickelplating—**
 Hermann Boker & Co., 101 Duane St., New York.
- Night Latches—**
 (See Latches, Night.)
- Night Sticks—**
 E. B. Estes & Sons, 45-47 John St., New York.
- Nippers, Bicycle—**
 Kilborn & Bishop Co., New Haven, Ct.
 Scovill Mfg. Co., Waterbury, Ct.
 Utica Drop Forge & Tool Co., Utica, N. Y.
- Nippers, Cutting—**
 Kilborn & Bishop Co., New Haven, Ct.
 Wm. Scholborn Co., New Haven, Ct.
 Schuchardt & Schutte, 136 Liberty St., New York.
- Nippers, End Cutting—**
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
 Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Alfred Field & Co., 98 Chambers St., New York.
 Heller Brothers Co., Newark, N. J.
 Kilborn & Bishop Co., New Haven, Ct.
 Charles Morrill, 277 Broadway, N. Y.
 Nettleton Mfg. Co., Middletown, Ct.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Louis Sacks, Newark, N. J.
 Schuchardt & Schutte, 136 Liberty St., New York.
 Otis A. Smith, Rockfall, Ct.
 L. S. Starrett Co., Athol, Mass.
 Utica Drop Forge & Tool Co., Utica, N. Y.
 Vaughan & Bushnell Mfg. Co., Chicago, Wiebusch & Hilger, 9-15 Murray St., N. Y.
 A. C. Williams, Ravenna, O.
- Nippers, Stay Bolt—**
 Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
- Nipple Blank Machines, Bicycle—**
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
- Nipple Holders, Wrenches—**
 (See Holders, Wrenches.)
- Nipples, Bicycle and Automobile—**
 Excelsior Needle Co., Torrington, Ct.
 E. J. Manville Machine Co., Waterbury, Ct.
- Wire Goods Co., Worcester, Mass.**
- Notary Seals—**
 (See Seals, Notary, &c.)
- Notching Machines, Armature Disk—**
 E. W. Bliss Co., Brooklyn, N. Y.
 Jas. Clark, Jr. & Co., Louisville, Ky.
 Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.
 Long & Allstatter Co., Hamilton, O.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 George A. Ohl & Co., Newark, N. J.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Notching Machines, Splice Bar—**
 Long & Allstatter Co., Hamilton, O.
- Novelties, Advertising—**
 E. B. Estes & Sons, 45-47 John St., New York.
- Nozzles, Blast—**
 Eymon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.
- Nozzles, Hose—**
 Barnes Mfg. Co., Mansfield, O.
 Deming Co., Salem, O.
 McNab & Harlin Mfg. Co., 50-56 John St., New York.
 H. Mueller Mfg. Co., Decatur, Ill.
 F. E. Myers & Bro., Ashland, O.
 Plunger & Henger Mfg. Co., St. Louis, Mo.
 Pullman Mfg. Co., Rochester, N. Y.
- Nozzles, Ladle—**
 McCullough-Dalzell Crucible Co., Pittsburgh, Pa.
- Nozzles, Oil—**
 R. B. Seidel, Inc., 1331 Callowhill St., Philadelphia, Pa.
- Nozzles, Oil—**
 American Tube & Stamping Co., Bridgeport, Ct.
 Gem Mfg. Co., Pittsburgh, Pa.
- Numbering Machines, Automatic—**
 A. G. Tiffler, 234-236 Pearl St., N. Y.
- Numbering Machines, Hand—**
 New York Stencil Works, 100 Nassau St., New York.
- Numbering Machines, Typographic—**
 New York Stencil Works, 100 Nassau St., New York.

- Numbers, House—**
(See Letter and Figures, House.)
- Nut and Bolt Machinery—**
(See Bolt and Nut Machinery.)
- Nut Covers—**
(See Covers, Nut.)
- Nut Crackers, Picks—**
(See Crackers, Picks.)
- Nut Kegs—**
(See Kegs, Nail, Bolt, Nut, &c.)
- Nut Tapping Machines—**
(See Burring Machines, Facing Machines, Tapping Machines.)
- Nutmeg Grates—**
(See Grates, Nutmeg.)
- Nuts, Cap and Brass—**
Blake & Johnson, Waterbury, Ct.
Cleveland Cap Screw Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Ct.
Geo. Q. Hill Co., Boston, Mass.
National-Acme Mfg. Co., Cleveland, O.
Steward & Romaine Mfg. Co., Philadelphia, Pa.
- Nuts, Cold Punched—**
Garland Nut & Rivet Co., Pittsburgh, Pa.
Geo. Q. Hill Co., Boston, Mass.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
National Bolt & Nut Co., Pittsburgh, Pa.
- Nuts, Coupling—**
Samuel Hall's Sons, 229-233 W. 10th St., New York.
- Nuts, Finished Case Hardened—**
Hartford Machine Screw Co., Hartford, Ct.
Geo. Q. Hill Co., Boston, Mass.
McCloud, Crane & Minter Co., Worcester, Mass.
National Bolt & Nut Co., Pittsburgh, Pa.
St. Louis Screw Co., St. Louis, Mo.
- Nuts, Hexagon Brass—**
Hartford Machine Screw Co., Hartford, Ct.
Geo. Q. Hill Co., Boston, Mass.
National-Acme Mfg. Co., Cleveland, O.
- Nuts, Hot Pressed—**
Hubbard & Co., Pittsburgh, Pa.
National Bolt & Nut Co., Pittsburgh, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.
St. Louis Screw Co., St. Louis, Mo.
- Nuts, Knurled—**
Blake & Johnson, Waterbury, Ct.
Hartford Machine Screw Co., Hartford, Ct.
Geo. Q. Hill Co., Boston, Mass.
Pratt & Whitney Co., Hartford, Ct.
- Nuts, Large, Forged—**
Fort Pitt Forge Co., Pittsburgh, Pa.
National Bolt & Nut Co., Pittsburgh, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.
- Nuts, Lock—**
American Iron & Steel Mfg. Co., Lebanon, Pa.
American Lock Nut Co., Oregon, Ill.
American Valve & Meter Co., Cincinnati, O.
Eicher Co., Alliance, O.
Samuel Hall's Sons, 229-233 W. 10th St., New York.
Hartford Machine Screw Co., Hartford, Ct.
Interstate Engineering Co., Bedford, Ct.
McNab & Harlin Mfg. Co., 50-56 John St., New York.
- Smith Improved Lock Nut Co.,** Rockford, Ill.
- Solid Steel Tool & Forge Co.,** Tarentum, Pa.
- Nuts, Pipe Check—**
Boston Bolt Co., Boston, Mass.
- Nuts, Pipe, Sleeve—**
American Iron & Steel Mfg. Co., Lebanon, Pa.
- Nuts, Semi-Finished—**
Garland Nut & Rivet Co., Pittsburgh, Pa.
Geo. Q. Hill Co., Boston, Mass.
McCloud, Crane & Minter Co., Worcester, Mass.
National Bolt & Nut Co., Pittsburgh, Pa.
St. Louis Screw Co., St. Louis, Mo.
- Nuts, Square and Hexagon—**
American Bridge Co. of New York, 42 Broadway, New York.
American Iron & Steel Mfg. Co., Lebanon, Pa.
Atlas Bolt & Screw Co., Cleveland, O.
Boston Bolt Co., Boston, Mass.
Chicago Screw Co., 2 No. Canal St., Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Ct.
Cleveland Cap Screw Co., Cleveland, O.
Garland Nut & Rivet Co., Pittsburgh, Pa.
Graham Nut Co., Pittsburgh, Pa.
Sam'l Hall's Sons, 229-233 West 10th St., New York.
Hartford Machine Screw Co., Hartford, Ct.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Geo. Q. Hill Co., Boston, Mass.
M. Lanz & Sons, Pittsburgh, Pa.
Milton Mfg. Co., Milton, Pa.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
National Bolt & Nut Co., Pittsburgh, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.
Phosphor Bronze Smelting Co., Ltd., 230 Washington Ave., Philadelphia, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
Republic Iron & Steel Co., Chicago, Ill.
Rhode Island Tool Co., Providence, R. I.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
St. Louis Screw Co., St. Louis, Mo.
Upon Nut Co., Cleveland, O.
W. & S. Mfg. Co., Worcester, Mass.
- Nuts, Thumb—**
Atlas Bolt & Screw Co., Cleveland, O.
Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.
Billings & Spencer Co., Hartford, Ct.
R. H. Brown & Co., New Haven, Ct.
Chicago Screw Co., 2 No. Canal St., Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Ct.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Geo. Q. Hill Co., Boston, Mass.
Keystone Drop Forge Works, Chester, Pa.
Philadelphia Machine Screw Works, 624-626 Race St., Philadelphia, Pa.
Republic Iron & Steel Co., Chicago, Ill.
St. Louis Screw Co., St. Louis, Mo.
J. H. Williams & Co., Brooklyn, N. Y.
- Onkum—**
Broderick & Bascom Rope Co., St. Louis.
A. Leachman & Sons Rope Co., St. Louis.

- New York Cordage Co., 83-85 Wall St., New York.
 Lunkenheimer Co., Cincinnati, O.
 Wm. Powell Co., Cincinnati, O.
 Walter A. Zelincker Supply Co., St. Louis, Mo.
 E. W. Vanduzen Co., Cincinnati, O.
- Oars, Boat—**
 E. H. Estes & Sons, 45-47 John St., New York.
- Oat Meal Machinery—**
 Case Mfg. Co., Columbus, O.
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Ocher, Yellow—**
 E. L. Sibley, Bennington, Vt.
- Odometers—**
 Keuffel & Esser Co., 127 Fulton St., N. Y.
 Veeder Mfg. Co., Hartford, Ct.
- Office Wire—**
 (See Wires, Electrical.)
- Oil and Molasses Gates—**
 (See Gates, Oil and Molasses.)
- Oil and Waste Saving Machines—**
 Oil & Waste Saving Machine Co., Real Estate Trust Bldg., Philadelphia, Pa.
- Oil, Asphaltum—**
 Gulf Refining Co., Pittsburgh, Pa.
- Oil Cans, &c.—**
 (See Cans, &c.)
- Oil Cloth, Paper Hangers' &c., Knives—**
 (See Knives, Paper Hangers', Oil Cloth, &c.)
- Oil, Core—**
 S. Obermayer Co., Cincinnati, O.
 J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
 J. D. Smith Foundry Supply Co., Cleveland, O.
- Oil Drills—**
 (See Drills, Oil.)
- Oil Equipment, Fuel—**
 (See Fuel Oil Equipment.)
- Oil, Fuel—**
 Gulf Refining Co., Pittsburgh, Pa.
- Oil, Gas—**
 Gulf Refining Co., Pittsburgh, Pa.
- Oil, Lubricating—**
 Chas. H. Bealy & Co., 15-21 Clinton St., Chicago, Ill.
 Geo. E. Gay, Augusta, Me.
 John H. Graham & Co., 113 Chambers St., New York.
- Oil Refining Machinery—**
 Struthers, Wells & Co., Warren, Pa.
- Oil Wells, Machinery for Pumping—**
 (See Pumping Oil Wells, Machinery for.)
- Oil Well Supplies and Tools—**
 (See Well Supplies and Tools.)
- Oiler Nozzles—**
 (See Nozzles, Oiler.)
- Oilers, Bicycle—**
 Scovill Mfg. Co., Waterbury, Ct.
- Oilers, Car Wheel, Machinery, &c.—**
 Wm. Powell Co., Cincinnati, O.
- Oilers, Engineers—**
 American Tube & Stamping Co., Bridgeport, Ct.
 Gem Mfg. Co., Pittsburgh, Pa.
 Johnson Mfg. Co., Urbana, O.
 Wm. Powell Co., Cincinnati, O.
- Oilers, Loose Pulley—**
 Gem Mfg. Co., Pittsburgh, Pa.
- Oilers, Shafting—**
 American Tube & Stamping Co., Bridgeport, Ct.
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Chas. H. Bealy & Co., 15-21 Clinton St., Chicago, Ill.
 Lunkenheimer Co., Cincinnati, O.
 Wm. Powell Co., Cincinnati, O.
 Scovill Mfg. Co., Waterbury, Ct.
- Oilers, Spring—**
 American Tube & Stamping Co., Bridgeport, Ct.
 Bridgeport Brass Co., 253 B'way, N. Y.
 Gem Mfg. Co., Pittsburgh, Pa.
 Hammer & Co., Branford, Ct.
 Wm. Powell Co., Cincinnati, O.
 Republic Metalware Co., Buffalo, N. Y.
 Scovill Mfg. Co., Waterbury, Ct.
 Tower & Lyon Co., 95 Chambers St., New York.
 Walter A. Zelincker Supply Co., St. Louis, Mo.
- Old Material—**
 (See Material, Old.)
- Open Links—**
 (See Links, Repair and Lap.)
- Openers, Box and Crate—**
 Arcade Mfg. Co., Freeport, Ill.
 Bemis & Call Hardware & Tool Co., Springfield, Mass.
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
 Fanner Mfg. Co., Cleveland, O.
 Kilborn & Bishop Co., New Haven, Ct.
 Vaughan & Bushnell Mfg. Co., Chicago.
- Openers, Can—**
 American Cutlery Co., Chicago, Ill.
 W. L. Barrett, Bristol, Ct.
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
 Columbia Grey Iron Co., Columbia, Pa.
 Alfred Field & Co., 93 Chambers St., New York.
 Goodell Co., Antrim, N. H.
 John H. Graham & Co., 113 Chambers St., New York.
 Handy Things Co., Ludington, Mich.
 New England Specialty Co., North Easton, Mass.
 Parker Wire Goods Co., Worcester, Mass.
 L. D. Parkhurst, Danielson, Ct.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Potter Mfg. Co., Geneva, O.
 Pritchard-Strong Co., Rochester, N. Y.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Wrightsville Hardware Co., Wrightsville, Pa.
- Openers, Clear Box—**
 American Cutlery Co., Chicago, Ill.
 Dame, Stoddard & Co., Boston, Mass.
 John H. Graham & Co., 113 Chambers St., New York.
 Gray Iron Foundry Co., Reading, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
- Openers, Egg—**
 (See Egg Openers.)
- Openers, Letter—**
 American Cutlery Co., Chicago, Ill.
 National Cutlery Co., Philadelphia, Pa.

Openers, Sash and Window—

G. Drouve Co., Bridgeport, Ct.
Hitchings & Co., 1170 Broadway, New York.

Lord & Burnham Co., Irvington-on-Hudson, N. Y.

Openers, Skylight Window—

G. Drouve Co., Bridgeport, Ct.

Optical Instruments and Supplies—

Kenuff & Esser Co., 127 Fulton St., N. Y.

Order Sheet Binders and Holders—

(See Binders and Holders, Order Sheet).

Ore, Antimony—

General Smelting Co., 38 Wall St., New York.

Ore, Chrome—

Reed & Blair & Co., Pittsburgh, Pa.

Harbison-Walker Refractories Co., Pittsburgh, Pa.

C. W. Leavitt & Co., 220 Broadway, New York.

James Lee & Co., 76 William St., New York.

J. Wesley Pullman, 238 S. 3d St., Philadelphia, Pa.

Frank Samuel, Harrison Bldg., Philadelphia, Pa.

Ore, Copper—

Orford Copper Co., 43 Exchange Pl., N. Y.

Ore Crushers, Roasting Furnaces, Washer Screws—

(See Crushers, Furnaces, Screws.)

Ore Handling Machinery—

Broderick & Bascom Rope Co., St. Louis.

Browning Engineering Co., Cleveland, O.

Brown Hoisting Machinery Co., Cleveland, O.

Ore, Iron—

La Belle Iron Works, Steubenville, O.

Pilling & Crane, Girard Bldg., Philadelphia, Pa.

Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Geo. G. Blackwell Sons & Co., The Albany, Liverpool, England.

Justice Cox, Jr., & Co., Land Title Bldg., Philadelphia, Pa.

J. H. Hillman & Son, Pittsburgh, Pa.

Jerome Keeley & Co., 421 Chestnut St., Philadelphia, Pa.

Ernest Law & Co., 15th and Market Sts., Philadelphia, Pa.

J. Tatrall Lea & Co., 19 So. 12th St., Philadelphia, Pa.

C. W. Leavitt & Co., 220 Broadway, New York.

J. J. Mohr, Bullitt Bldg., Philadelphia, Pa.

J. Wesley Pullman, 238 S. 3d St., Philadelphia, Pa.

Frank Samuel, 15th and Market Sts., Philadelphia, Pa.

W. P. Snyder & Co., Pittsburgh, Pa.

Tod-Stambach Co., Cleveland, O.

Ore, Manganese—

C. W. Leavitt & Co., 220 Broadway, New York.

Frank Samuel, Harrison Bldg., Philadelphia, Pa.

Ore, Nickel—

Orford Copper Co., 43 Exchange Pl., N. Y.

Ore Shovels—

(See Shovels, Ore.)

Ores and Mattes, Copper—

American Metal Co., 52 Broadway, N. Y.

Organ Hardware—

(See Piano and Organ Hardware.)

Ornamental Clocks—

(See Clocks, Ornamental.)

Ornamental Iron Brass and Bronze Work—

(See Iron, Brass and Bronze, Ornamental.)

Ornamental Sheet Metal Work—

(See Metal Specialties, Ornamental Sheet.)

Ovens, Annealing—

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Warren City Tank & Boiler Works, Warren, O.

Whiting Foundry Equipment Co., Harvey, Ill.

Ovens, Baking, Electric—

General Electric Co., Schenectady, N. Y.

Ovens, Cabinet, Portable—

G. S. Blodgett Co., Burlington, Vt.

Ovens, Core—

G. S. Blodgett Co., Burlington, Vt.

Byram & Co., Inc., Detroit, Mich.

Millett Core Oven Co., Brightwood, Mass.

Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., 1201 N. Delaware Ave., Philadelphia, Pa.

Whiting Foundry Equipment Co., Harvey, Ill.

Ovens, Enameling—

American Gas Furnace Co., 23 John St., New York.

G. S. Blodgett Co., Burlington, Vt.

Oven Equipment & Mfg. Co., Stamford, Ct.

Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.

Van Dorn Iron Works Co., Cleveland, O.

Ovens, Gas Enameling—

American Gas Furnace Co., 23 John St., New York.

Oven Equipment & Mfg. Co., Stamford, Ct.

Ovens, Gas, Gasoline and Oil—

Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.

Glazier Stove Co., Chelsea, Mich.

Schneider & Trenkamp Division, American Stove Co., Cleveland, O.

Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.

Overhanging Track Hooks—

(See Hooks, Overhanging Track.)

Overhead Tramways—

(See Tramways, Overhead.)

Ox Balls, Shoes, Yokes—

(See Balls, Shoes, Yokes.)

Ox Bow Pins—

(See Pins, Ox Bow.)

Oxidizing—

Raymond Mfg. Co., Corry, Pa.

W. & S. Mfg. Co., Worcester, Mass.

Oyster Knives, Rivets—

(See Knives, Rivets.)

Package Protectors—

(See Protectors, Package.)

Packing Boxes, Wood—

(See Boxes, Wood Packing.)

Packing, Cup and Flange—
Jenkins Brothers, 71 John St., New York.
Quincy, Manchester, Sargent Co., Old
Colony Bldg., Chicago, Ill.
Chas. A. Schieren & Co., 37 Ferry St.,
New York.
Watson-Stillman Co., 46 Dey St., New
York.

**Packing, Iron Cement
Sheet**—
Smooth-On Mfg. Co., Jersey City, N. J.

**Packing, Jute, Hemp and
Flax**—

Broderick & Bascom Rope Co., St. Louis.
A. Leschen & Sons Rope Co., St. Louis.
New York Cordage Co., 80 Wall St., New
York.

Walsh's Sons & Co., Newark, N. J.
**Packing, Metallic Valve
Rod**—

Ingersoll-Rand Co., 11 Broadway, New
York.
Power Specialty Co., 111 Broadway, New
York.

Packing, Oil Well—
New York Belting & Packing Co., 91-93
Chambers St., New York.

**Packing, Rubber Composi-
tion**—
Jenkins Bros., 71 John St., New York.

New York Belting & Packing Co., 91-93
Chambers St., New York.

**Packing, Valve Rod and
Piston**—

Broderick & Bascom Rope Co., St. Louis.
Farbanks Co., 416 Broome St., New York.
H. W. Johns-Manville Co., 100 William
St., New York.

A. Leschen & Sons Rope Co., St. Louis.
New York Belting & Packing Co., 91-93
Chambers St., New York.

New York Cordage Co., 83-85 Wall St.,
New York.

Pad Locks—
(See Locks, Pad.)

**Pail and Parcel Handle Au-
tomatic Machinery**—

Peter Gerlach Co., Cleveland, O.

Pail Clamps, Ears—
(See Clamps, Ears.)

Pail Machinery and Tools—
Peter Gerlach Co., Cleveland, O.

Pail Woods—
Handy Things Co., Ludington, Mich.

Pails and Tubs, Ice Cream—
Richmond Cedar Works, Richmond, Va.

Pails, Candy—
Richmond Cedar Works, Richmond, Va.

Pails, Dinner—
Republic Metalware Co., Buffalo, N. Y.

Pails, Factory—
(See Buckets, Factory.)

Pails, Fire—
(See Buckets, Fire.)

Pails, Foundry—
W. J. Clark Co., Salem, O.

S. Obermayer Co., Cincinnati, O.
Osborn Mfg. Co., Cleveland, O.

Pails, Galvanized—
Osborn Mfg. Co., Cleveland, O.

Republic Metalware Co., Buffalo, N. Y.
Pails, Lard—
Richmond Cedar Works, Richmond, Va.

Pails, Prison—
Tower & Lyon Co., 95 Chambers St.,
New York.

Pails, Spice—
Richmond Cedar Works, Richmond, Va.

Pails, Steel—
W. J. Clark Co., Salem, O.

Cleveland Wire Spring Co., Cleveland, O.

Pails, Tin—
Bronson-Walton Co., Cleveland, O.

Republic Metalware Co., Buffalo, N. Y.

Pails, Wooden—
Richmond Cedar Works, Richmond, Va.

Paint and Whitewash

Spraying Machines—
Chicago Pneumatic Tool Co., Fisher
Bldg., Chicago, Ill.

Deming Co., Salem, O.

F. E. Myers & Bro., Ashland, O.

Turner Brass Works, Franklin & Michi-
gan Sts., Chicago, Ill.

Wallace Supply Co., 169 Jackson Blvd.,
Chicago, Ill.

Paint Burners, Cans—
(See Burners, Cans.)

Paint, Greenhouse—
Lord & Burnham Co., Irvington-on-Hud-
son, N. Y.

Paint, Machinery—
New Castle Paint & Varnish Co., New
Castle, Pa.

Poole Engineering & Machine Co., Balti-
more, Md.

Paint, Remover—
(See Varnish and Paint Remover.)

Painters' Trestles—
(See Trestles Painters.)

Paints, Car Floor—
New Castle Paint & Varnish Co., New
Castle, Pa.

Paints, Enamel—
New Castle Paint & Varnish Co., New
Castle, Pa.

Paints, Paste—
John Briggs & Co., Boston, Mass.

Garry Iron & Steel Co., Cleveland, O.

Paints, Preservative—
Garry Iron & Steel Co., Cleveland, O.

Paints, Ready Mixed—
John Briggs & Co., Boston, Mass.

Garry Iron & Steel Co., Cleveland, O.

New Castle Paint & Varnish Co., New
Castle, Pa.

Paints, Roof—
Asphalt Ready Roofing Co., 136 Water St.,
New York.

Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.

Edwards Mfg. Co., Cincinnati, O.

Garry Iron & Steel Co., Cleveland, O.

H. W. Johns-Manville Co., 100 William
St., New York.

National Roofing Co., Tonawanda, N. Y.

New Castle Paint & Varnish Co., New
Castle, Pa.

Stowell Mfg. Co., Jersey City, N. J.

Paints, Structural—
Asphalt Ready Roofing Co., 136 Water St.,
New York.

Cleveland Stone Co., Cleveland, O.

Jos. Dixon Crucible Co., Jersey City, N. J.

Garry Iron & Steel Co., Cleveland, O.

New Castle Paint & Varnish Co., New
Castle, Pa.

Stowell Mfg. Co., Jersey City, N. J.

**Paints, Sashors' and Sill
Makers**—
W. & J. Tiebout, 118 Chambers St., N. Y.

Union Hardware Co., Torrington, Ct.

- Panel Saws—**
(See Saws, Hand, Panel, Back, &c.)
- Pans, Acid—**
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
- Pans, Annealing, Lead—**
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Pans, Annealing, Steel—**
Cleveland Wire Spring Co., Cleveland, O.
- Pans, Biscuit—**
Bronson-Walton Co., Cleveland, O.
- Pans, Bread—**
Bronson-Walton Co., Cleveland, O.
Edwards Mfg. Co., Cincinnati, O.
- Pans, Cake—**
North Bros. Mfg. Co., Philadelphia, Pa.
Sidney Shepard & Co., Buffalo, N. Y.
- Pans, Candy—**
John Chatillon & Sons, 85 Cliff St., N. Y.
- Pans, Charring—**
W. J. Clark Co., Salem, O.
Meehan Boiler & Construction Co., Lowellville, O.
- Pans, Clay Mixing and Ore—**
Thos. Carlin's Sons, Allegheny, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Pans, Conveyor—**
Avery Stamping Co., Cleveland, O.
W. J. Clark Co., Salem, O.
- Pans, Cook, Hot Air—**
Wm. B. Scaife & Sons Co., Pittsburgh.
- Pans, Cookie—**
Bronson-Walton Co., Cleveland, O.
- Pans, Draining—**
Bronson-Walton Co., Cleveland, O.
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
- Pans, Drying—**
Edwards Mfg. Co., Cincinnati, O.
Republic Metalware Co., Buffalo, N. Y.
- Pans, Drying—**
W. J. Clark Co., Salem, O.
Cleveland Wire Spring Co., Cleveland, O.
Meehan Boiler & Construction Co., Lowellville, O.
- Pans, Dust—**
Wm. B. Scaife & Sons Co., Pittsburgh.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Pans, Fry—**
Delphos Can Co., Delphos, O.
Republic Metalware Co., Buffalo, N. Y.
- Pans, Gem—**
Avery Stamping Co., Cleveland, O.
New York Stamping Co., Brooklyn, N. Y.
Republic Metalware Co., Buffalo, N. Y.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Pans, Grinding—**
Thos. Carlin's Sons, Allegheny, Pa.
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
- Pans, Hoof—**
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Pans, Medicine—**
W. J. Clark Co., Salem, O.
Cleveland Wire Spring Co., Cleveland, O.
- Pans, Miners' Gold—**
Republic Metalware Co., Buffalo, N. Y.
- Pans, Omelet and Chafin Dish—**
New York Stamping Co., Brooklyn, N. Y.
- Pans, Roasting and Baking—**
Bronson-Walton Co., Cleveland, O.
Edwards Mfg. Co., Cincinnati, O.
Republic Metalware Co., Buffalo, N. Y.
- Pans, Shop—**
W. J. Clark Co., Salem, O.
Cleveland Wire Spring Co., Cleveland, O.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
- Pans, Steel, or Order—**
W. J. Clark Co., Salem, O.
- Pans, Vacuum—**
E. B. Badger & Sons Co., Boston, Mass.
Buffalo Forge Co., Buffalo, N. Y.
- Pantry Steps—**
(See Steps, Pantry.)
- Paper, Blue Print—**
Keuffel & Esser Co., 127 Fulton St., N. Y.
- Paper Boxes, Cutting & Knives, &c.—**
(See Boxes, Knives, &c.)
- Paper, Building, Sheathing—**
Samuel Cabot, Boston, Mass.
H. W. Johns-Manville Co., 100 William St., New York.
- Paper Calendars—**
(See Calendars, Paper.)
- Paper, Card and Book Racks—**
(See Racks, Card, Book and Paper.)
- Paper Cutters—**
(See Cutters, Paper.)
- Paper, Drawing—**
Keuffel & Esser Co., 127 Fulton St., N. Y.
- Paper Files—**
(See Desk Specialties.)
- Paper, Fireproofing—**
Samuel Cabot, Boston, Mass.
- Paper Hangers' Knives, Shears—**
(See Knives, Shears)
- Paper, Insulating—**
Samuel Cabot, Boston, Mass.
- Paper, Micrometers for—**
(See Micrometers, Paper.)
- Paper, Sand, Garnet, &c.—**
Baeder, Adamson & Co., 730 Market St., Philadelphia, Pa.
- Paper Shells, Weights—**
(See Shells, Weights.)
- Paper, Sound Deadening—**
Samuel Cabot, Boston, Mass.
- Papers, Ferro Prussiate—**
Keuffel & Esser Co., 127 Fulton St., N. Y.
- Papers, Photoprinting—**
Keuffel & Esser Co., 127 Fulton St., N. Y.
- Papers, Profile—**
Keuffel & Esser Co., 127 Fulton St., N. Y.
- Parallel Clamps, Rules, Vises—**
(See Clamps, Rules, Vises.)
- Parers, Apple and Potato—**
Goodell Co., Antrim, N. H.
- Parker Wire Goods Co., Worcester, Mass.**
Reading Hardware Co., Reading, Pa.
- Parers, Hoof—**
(See Knives, Farrier.)
- Park Fountains—**
(See Fountains, Park, Lawn, &c.)
- Parting Tools—**
(See Tools, Parting.)

Partitions, Metal—
 Edwards Mfg. Co., Cincinnati, O.
 Youngstown Iron & Steel Roofing Co.,
 Youngstown, O.
Paste, Razor—
 Alfred Field & Co., 93 Chambers St.,
 New York.
 A. L. Silberstein, 459-461 Broadway, N. Y.
Patch Bolts—
 (See Bolts, Boiler, Patch.)
Patches, Pipe— (See Pipe Patches,
 Patent Attorneys—
 George R. Hamlin, Washington, D. C.
 Howson & Howson, 32 So. Broad St.,
 Philadelphia, Pa.
 E. B. Stocking, Washington, D. C.
Pattern Letters—
 (See Letters, Pattern.)
Pattern Makers' Dowels—
 (See Dowels, Pattern Makers.)
Pattern Makers' Machinery—
 Badger State Machine Co., Janesville,
 Wis.
 Fox Machine Co., Grand Rapids, Mich.
 Greaves, Klusman & Co., Cincinnati, O.
 Hobbs Mfg. Co., Worcester, Mass.
 Oliver Machinery Co., Grand Rapids,
 Mich.
 J. W. Paxson Co., 1021 N. Delaware Ave.,
 Philadelphia, Pa.
 Pratt & Whitney Co., Hartford, Ct.
 MERCHANTS.
 Carlin Machinery & Supply Co., Inc.,
 Allegheny, Pa.
 Hill, Clarke & Co., Boston, Mass.
 H. A. Rogers Co., 19 John St., New York.
 Thornton Machinery Co., Providence,
 R. I.
 Wickes Bros., Saginaw, Mich.
Pattern Makers' Supplies—
 S. Obermayer Co., Cincinnati, O.
 Oliver Machinery Co., Grand Rapids,
 Mich.
Pattern Making—
 Badger State Machine Co., Janesville,
 Wis.
 Barry & Zecher Co., Lancaster, Pa.
 Bethlehem Foundry & Machine Co., South
 Bethlehem, Pa.
 Blake & Johnson, Waterbury, Ct.
 Buhl Malleable Co., Detroit, Mich.
 Case Mfg. Co., Columbus, O.
 John W. Clark, Albany, N. Y.
 Colonial Foundry & Machinery Co., So.
 Norwalk, Ct.
 Charles F. Elmas Engineering Works,
 Morgan and Fulton Sts., Chicago, Ill.
 Eynon-Evans Mfg. Co., 1507 Clearfield
 St., Philadelphia, Pa.
 Forest City Foundry & Mfg. Co., Cleve-
 land, O.
 Wm. Gardam & Son, Inc., 45-51 Rose St.,
 New York.
 R. E. Kidder, Worcester, Mass.
 Lough-Scott Co., 26 Cortlandt St., New
 Plunger & Henger Mfg. Co., St. Louis, Mo.
 J. J. Ryan & Co., 68-74 W. Monroe St.,
 Chicago, Ill.
 Ira B. Smith, Bristol, Ct.
 Susquehanna Castings Co., Wrightsville,
 Pa.
 Wellman-Seaver-Morgan Co., Cleveland, O.
 York Pattern Works, York, Pa.
Pattern Making, Metal—
 Acme Steel & Malleable Iron Works, Buf-
 falo, N. Y.

Badger State Machine Co., Janesville,
 Wis.
 Barry & Zecher Co., Lancaster, Pa.
 Bethlehem Foundry & Machine Co., South
 Bethlehem, Pa.
 Blake & Johnson, Waterbury, Ct.
 Columbia Grey Iron Co., Columbia, Pa.
 Grant Mfg. & Machine Co., Bridgeport,
 Ct.
 R. E. Kidder, Worcester, Mass.
 Lough-Scott Co., 26 Cortlandt St., New
 York.
 Palmers & DeMooy Foundry Co., Cleve-
 land, O.
 Plunger & Henger Mfg. Co., St. Louis, Mo.
 J. J. Ryan & Co., 68-74 W. Monroe St.,
 Chicago, Ill.
 Susquehanna Castings Co., Wrightsville,
 Pa.
 York Pattern Works, York, Pa.
Patterns, Architectural—
 York Pattern Works, York, Pa.
Patterns for Name Plates—
 Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 York.
Paving Hammers—
 (See Hammers, Paving.)
Pawls, Ratchet—
 Boston Gear Works, Boston, Mass.
Peavies—
 Peter Gerlach Co., Cleveland, O.
Pedal Machines, Bicycle—
 Garvin Machine Co., Spring & Varick Sts.,
 New York.
 Hartford Machine Screw Co., Hartford,
 Ct.
 Pratt & Whitney Co., Hartford, Ct.
Pedals, Bicycle—
 John R. Keim Mills, Buffalo, N. Y.
Pedals, Piano—
 Susquehanna Casting Co., Wrightsville,
 Pa.
Peels, Bakers'—
 E. B. Estes & Sons, 45-47 John St., New
 York.
Peg Awls—
 (See Awls, Peg.)
Pegs, Clothes—
 E. B. Estes & Sons, 45-47 John St., New
 York.
Pen Holders—
 (See Holders, Pen.)
Pen Wipers—
 (See Desk Specialties, Silver Plated.)
**Pencil Attachments, Di-
 vider—**
 Keuffel & Esser Co., 127 Fulton St., N. Y.
 Tower & Lyon Co., 95 Chambers St.,
 New York.
Pencils, Lead—
 Jos. Dixon Crucible Co., Jersey City, N. J.
 Keuffel & Esser Co., 127 Fulton St., N. Y.
Pens, Steel—
 Alfred Field & Co., 93 Chambers St.,
 New York.
Penstocks—
 American Valve & Meter Co., Cincin-
 nati, O.
 East Jersey Pipe Co., Paterson, N. J.
 Franklin Boiler Works Co., Troy, N. Y.
 Humphrey Machine Co., Keene, N. H.
 Poole Engineering & Machine Co., Balti-
 more, Md.
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.
 Wm. B. Scafe & Sons Co., Pittsburgh.
 Struthers, Wells & Co., Warren, Pa.
 Wickes Bros., Saginaw, Mich.

- Penners and Salts, Silver Plated**—Silver Co., 9-13 Maiden Lane, New York.
- Percolators, Coffee**—Landers, Frary & Clark, New Britain, Ct.
- Percussion Caps**—(See Caps, Percussion.)
- Perforated Brass, Metal**—(See Brass, Metal.)
- Perforating Machines**—E. W. Bliss Co., Brooklyn, N. Y.
- Hilles & Jones Co.**, Wilmington, Del.
- Chas. Mundt & Sons**, 441-447 Pearl St., New York.
- Waterbury Farrel Foundry & Machine Co.**, Waterbury, Ct.
- R. Woodman Mfg. & Supply Co.**, Boston.
- Perforators, Check**—Fritchard-Strong Co., Rochester, N. Y.
- Petroleum**—Gulf Refining Co., Pittsburgh, Pa.
- Pew Book Racks**—(See Racks, Pew Book.)
- Phosphate Rock Machinery**—Jeffrey Mfg. Co., Columbus, O.
- Poole Engineering & Machine Co.**, Baltimore, Md.
- Phosphor-Bronze**—(See Bronze, Phosphor.)
- Phosphor-Bronze Ingots**—(See Ingots.)
- Phosphor-Tin**—(See Tin, Phosphor.)
- Phosphorizers**—McCullough Dalzell Crucible Co., Pittsburgh, Pa.
- Phosphorus**—Crescent Phosphorized Metal Co., Philadelphia, Pa.
- Photo Engraving**—(See Engraving, Photo and Wood.)
- Photograph Frames**—(See Frames, Photograph.)
- Photograph Trimmers**—(See Trimmers, Photograph.)
- Piano and Organ Hardware**—Blake & Johnson, Waterbury, Ct.
- Progressive Mfg. Co.**, Torrington, Ct.
- Piano Bellows, Lamps**—(See Bellows, Lamps.)
- Piano Frames**—Henry Perkins Co., Bridgewater, Mass.
- Pickers, Flower and Fruit**—Acme Shear Co., Bridgeport, Ct.
- Edward Darby & Sons**, 233-235 Arch St., Philadelphia, Pa.
- Parker Wire Goods Co.**, Worcester, Mass.
- Wire Goods Co.**, Worcester, Mass.
- Picket Chains**—(See Chains, Picket.)
- Pickets, Iron**—John W. Clark, Albany, N. Y.
- Chas. G. Eckstein**, 249 Centre St., N. Y.
- Pickle Casters**—(See Casters, Silver Plated.)
- Pickling Machines**—Mesta Machine Co., Pittsburgh, Pa.
- Picks and Awls, Ice**—Arcade Mfg. Co., Freeport, Ill.
- Ducharmes & Co.**, Shelburne Falls, Mass.
- Erie Specialty Co.**, Erie, Pa.
- Panner Mfg. Co.**, Cleveland, O.
- Geo. Q. Hill Co.**, Boston, Mass.
- Landers, Frary & Clark**, New Britain, Ct.
- H. H. Mayhew Co.**, Shelburne Falls, Mass.
- Parker Wire Goods Co.**, Worcester, Mass.
- Peck Stow & Wilcox Co.**, 27 Murray St., New York.
- Potter Mfg. Co.**, Geneva, O.
- Fritchard-Strong Co.**, Rochester, N. Y.
- Smith & Hemenway Co.**, 108-110 Duane St., New York.
- Snell Mfg. Co.**, Piskdale, Mass.
- Tuck Mfg. Co.**, Brockton, Mass.
- A. C. Williams**, Ravenna, O.
- Picks and Mattocks**—Hubbard & Co., Pittsburgh, Pa.
- Solid Steel Tool & Forge Co.**, Tarentum, Pa.
- Wiehusch & Hilger**, 9-15 Murray St., N. Y.
- Wrightsville Hardware Co.**, Wrightsville, Pa.
- Picks, Coal**—Hubbard & Co., Pittsburgh, Pa.
- Solid Steel Tool & Forge Co.**, Tarentum, Pa.
- Picks, Contractors**—Hubbard & Co., Pittsburgh, Pa.
- Picks, Drifting**—Hubbard & Co., Pittsburgh, Pa.
- Picks, Nut**—American Cutlery Co., Chicago, Ill.
- International Silver Co.**, 9-15 Maiden Lane, New York.
- Landers, Frary & Clark**, New Britain, Ct.
- Picks, Ore and Rock**—Hubbard & Co., Pittsburgh, Pa.
- Picks, Poll**—Hubbard & Co., Pittsburgh, Pa.
- Picks, Puncher**—Hubbard & Co., Pittsburgh, Pa.
- Picks, Stone and Quarry**—Hubbard & Co., Pittsburgh, Pa.
- Picks, Tamping**—Hubbard & Co., Pittsburgh, Pa.
- Picks, Tooth**—(See Toothpicks.)
- Picture Chains, Cord, Knobs, Nails**—(See Chains, Cord, Knobs, Nails.)
- Pie Plates**—(See Plates, Butter and Pie.)
- Pie Racks, Tins**—(See Racks, Bakery, Tins.)
- Pilasters, Panels, &c.**—(See Architectural Sheet Metal Work.)
- Pile Drivers**—(See Drivers, Pile.)
- Pillars, Gas, Brass**—U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
- Pillow Blocks**—(See Blocks, Pillow.)
- Pin Machinery**—Baird Machine Co., Oakville, Ct.
- E. J. Manville Machine Co.**, Waterbury, Ct.
- Pin Machines, Safety**—Baird Machine Co., Oakville, Ct.
- E. J. Manville Machine Co.**, Waterbury, Ct.
- Pin Sticking Machines**—Baird Machine Co., Oakville, Ct.
- Pin Vises**—(See Vises, Hand.)
- Pin Wire**—(See Wire, Pin.)

- Pincers**—
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
Heiler Bros. Co., Newark, N. J.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Louis Sacks, Newark, N. J.
Schuchardt & Schutte, 136 Liberty St., New York.
Vaughan & Bushnell Mfg. Co., Chicago.
A. C. Williams, Ravenna, O.
- Pinch Bars**—
(See Pushers, Car.)
- Pinion Cutters, Automatic**—
Dwight Slate Machine Co., Hartford, Ct.
- Pinions, Roll**—
Mesta Machine Co., Pittsburgh, Pa.
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.
Seaman-Sleeth Co., Pittsburgh, Pa.
- Pins, Air Brake**—
American Iron & Steel Mfg. Co., Lebanon, Pa.
Solid Steel Tool & Forge Co., Tarentum, Pa.
- Pins, Belaying**—
W. & J. Tiebout, 118 Chambers St., N. Y.
- Pins, Bowling**—
(See Balls and Pins.)
- Pins, Butchers' Block**—
Vaughan & Bushnell Mfg. Co., Chicago.
- Pins, Car Coupling**—
Cleveland City Forge & Iron Co., Cleveland, O.
Jones & Laughlin Steel Co., Pittsburgh.
Keystone Drop Forge Works, Chester, Pa.
Standard Chain Co., Pittsburgh, Pa.
- Pins, Caster**—
Atlas Bolt & Screw Co., Cleveland, O.
Ohio Nut & Bolt Co., Berea, O.
- Pins, Clothes**—
Demeritt & Palmer Packing Co., Waterbury, Vt.
E. B. Estes & Sons, 45-47 John St., New York.
C. C. Putnam & Son, Putnamville, Vt.
Richmond Cedar Works, Richmond, Va.
United States Clothes Pin Co., Montpelier, Vt.
- Pins, Crank**—
Erie Forge Co., Erie, Pa.
Samuel Osborn & Co., Boston, Mass.
Thiell-Morris Co., Eddystone, Pa.
- Pins, Dowel**—
A. G. Butler, 224-226 Pearl St., N. Y.
E. B. Estes & Sons, 45-47 John St., New York.
Grand Crossing Tack Co., Grand Crossing, Ill.
Oliver Machinery Co., Grand Rapids, Mich.
Parker Wire Goods Co., Worcester, Mass.
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
Pittsburgh Steel Co., Pittsburgh, Pa.
Progressive Mfg. Co., Torrington, Ct.
L. H. Titchener & Co., Binghamton, N. Y.
Wire Goods Co., Worcester, Mass.
- Pins, Drawing**—
Keuffel & Esser Co., 127 Fulton St., N. Y.
- Pins, Escutcheon, Brass and Iron**—
Blake & Johnson, Waterbury, Ct.
Bridgeport Brass Co., 253 B'way, N. Y.
Globe Mfg. Co., Taunton, Mass.
Grand Crossing Tack Co., Grand Crossing, Ill.
- John Hassall, Brooklyn, N. Y.
It. C. Jenkinson & Co., Newark, N. J.
Parker Wire Goods Co., Worcester, Mass.
Pine & Atwood Mfg. Co., Waterbury, Ct.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Arthur T. Rutter & Co., 256 Broadway, New York.
Scovill Mfg. Co., Waterbury, Ct.
Wire Goods Co., Worcester, Mass.
- Pins, Escutcheon, Copper**—
John Hassall, Brooklyn, N. Y.
- Pins, Escutcheon, German Silver**—
John Hassall, Brooklyn, N. Y.
- Pins, Hair**—
Blake & Johnson, Waterbury, Ct.
- Pins, Hinge**—
Atlas Bolt & Screw Co., Cleveland, O.
Ohio Nut & Bolt Co., Berea, O.
- Pins, Insulator**—
Diamond Expansion Bolt Co., 9-15 Murray St., New York.
E. B. Estes & Sons, 45-47 John St., New York.
- Pins, Knuckle**—
American Iron & Steel Mfg. Co., Lebanon, Pa.
- Pins, Lariat and Picket**—
(See Lariat and Picket Pins.)
- Pins, Ox Bow**—
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Pins, Plumbers' Turn**—
E. B. Estes & Sons, 45-47 John St., New York.
- Pins, Pole**—
(See Telegraph and Telephone Supplies.)
- Pins, Regalia**—
Wire Goods Co., Worcester, Mass.
- Pins, Register**—
Atlas Bolt & Screw Co., Cleveland, O.
Ohio Nut & Bolt Co., Berea, O.
- Pins, Rolling**—
Wm. R. Hartigan, Collinsville, Ct.
John Sommer's Son, Newark, N. J.
- Pins, Safety**—
A. H. Nilson Machine Co., Bridgeport, Ct.
- Pins, Sash**—
Grand Crossing Tack Co., Grand Crossing, Ill.
- W. & J. Tiebout, 118 Chambers St., N. Y.
- Pins, Shelf**—
Parker Wire Goods Co., Worcester, Mass.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Wire Goods Co., Worcester, Mass.
- Pins, Taper**—
Automatic Machine Co., Greenfield, Mass.
Hartford Machine Screw Co., Hartford, Ct.
Geo. Q. Hill Co., Boston, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Ct.
Progressive Mfg. Co., Torrington, Ct.
St. Louis Screw Co., St. Louis, Mo.
Standard Tool Co., Cleveland, O.
Worcester Machine Screw Co., Worcester, Mass.
- Pins, Ten**—
(See Balls and Pins.)
- Pins, Tent**—
E. B. Estes & Sons, 45-47 John St., New York.

Ping, Thole—

E. B. Estes & Sons, 45-47 John St., N. Y.

Pipe Bending and Cutting—

Harrisburg Pipe & Pipe Bending Co.,

Harrisburg, Pa.

National Pipe Bending Co., New Haven,

Ct.

Walworth Mfg. Co., Boston, Mass.

Whitlock Coil Pipe Co., Hartford, Ct.

Pipe Bending Forms—

Vanderman Plumbing & Heating Co.,

Willimantic, Ct.

Pipe Bending Machines—

Niles-Bement-Pond Co., 111 Broadway,

New York.

Standard Engineering Co., Ellwood City,

Pa.

Pipe, Brass and Copper—

(See Tubing, Brass and Copper.)

Pipe Brushes—

S. Obermayer Co., Cincinnati, O.

Pipe, Cast Iron—

Central Foundry Co., 116 Nassau St.,

New York.

J. K. Dimmick & Co., New Land Title

Bldg., Philadelphia, Pa.

Dimmick Pipe Co., Birmingham, Ala.

Chas. Millar & Son Co., Utica, N. Y.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

United States Cast Iron Pipe & Foundry

Co., 71 Broadway, New York.

R. D. Wood & Co., 409 Chestnut St.,

Philadelphia, Pa.

MERCHANTS.

Charles G. Shepard, Buffalo, N. Y.

Pipe Coils, Cutters, &c.—

(See Coils, Cutters, &c.)

Pipe, Conductor—

(See Conductors, Pipe.)

Pipe Cross Rolls—

Taylor-Wilson Mfg. Co., McKees Rocks,

Pa.

Pipe Cutters—

(See Cutters, Pipe and Tube.)

Pipe Cutting and Threading**Machines—**

Acme Machinery Co., Cleveland, O.

Bignall & Keeler Mfg. Co., Edwardsville,

Ill.

Curtis & Curtis Co., Bridgeport, Ct.

Detrick & Harvey Machine Co., Balti-

more, Md.

Fairbanks Co., 416 Broome St., New York.

Fox Machine Co., Grand Rapids, Mich.

Hofer Mfg. Co., Freeport, Ill.

Jarecki Mfg. Co., Erie, Pa.

Merrell Mfg. Co., Toledo, O.

National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 111 Broadway,

New York.

D. Saunders' Sons, Yonkers, N. Y.

Standard Engineering Co., Ellwood City,

Pa.

Stoever Foundry & Mfg. Co., Myers-

town, Pa.

Taylor-Wilson Mfg. Co., McKees Rocks,

Pa.

Wells Bros. Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield,

Mass.

Williams Tool Co., Erie, Pa.

MERCHANTS.

George E. Alleck, 107 Liberty St., N. Y.

Carlin Machinery & Supply Co., Inc.,

Allegheny, Pa.

J. H. Dawson Machinery Co., 39-41 S.

Canal St., Chicago, Ill.

Hill, Clarke & Co., Boston, Mass.

McDowell & Co., Allegheny, Pa.

Marshall & Huschart Machinery Co., 62

S. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co.,

Cleveland, O.

New York Machinery Depot, 120 Broad-

way, New York.

Prentiss Tool & Supply Co., 115 Liberl v

St., New York.

Thornton Machinery Co., Providence,

R. I.

Vandyck, Churchill Co., 8 Dey St., N. Y.

Wickes Bros., Saginaw, Mich.

Pipe, Doubled Refined Pud-**dled Iron—**

Youngtown Sheet & Tube Co., Youngs-

town, O.

Pipe, Flanging—

Whitlock Coil Pipe Co., Hartford, Ct.

Pipe, Flexible Joint—

United States Cast Iron Pipe & Foundry

Co., 71 Broadway, New York.

Pipe, Furnace—

S. M. Howes Co., Boston, Mass.

Pipe, Galvanized—

American Spiral Pipe Works, 1173-1201 S.

Paulina St., Chicago, Ill.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.

Harrisburg Pipe & Pipe Bending Co.,

Harrisburg, Pa.

National Tube Co., Pittsburgh, Pa.

Youngtown Sheet & Tube Co., Youngs-

town, O.

Pipe, Galvanized Riveted—

American Spiral Pipe Works, 1173-1201

Paulina St., Chicago, Ill.

Wm. B. Scaife & Sons Co., Pittsb. gh.

Stirling Blower & Pipe Mfg. Co., Hart-

ford, Ct.

B. F. Sturtevant Co., Boston, Mass.

Pipe Hanger Tongs—

(See Tongs, Pipe Hanger.)

Pipe Hook Plates, Steel—

(See Plates, Pipe Hook, Steel.)

Pipe, Lead—

Chas. Millar & Son Co., Utica, N. Y.

Pipe, Line and Drive—

Mark Mfg. Co., Chicago, Ill.

Pipe, Lock-Bar—

East Jersey Pipe Co., Paterson, N. J.

Pipe, Merchant—

Bridgman Bros. Co., 1422-23 Washington

Ave., Philadelphia, Pa.

Harrisburg Pipe & Pipe Bending Co.,

Harrisburg, Pa.

La Belle Iron Works, Steubenville, O.

Mark Mfg. Co., Chicago, Ill.

National Tube Co., Pittsburgh, Pa.

Youngtown Sheet & Tube Co., Youngs-

town, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.

C. B. Houston & Co., Girard Bldg.,

Philadelphia, Pa.

I. C. Hirsch Iron, Steel & Rail Co., Cin-

cinnati, O.

McClernan & Orr, Monadnock Block, Chi-

cago, Ill.

McDowell & Co., Allegheny, Pa.

John B. Newkirk & Co., Harrison Bldg.,

Philadelphia, Pa.

Pittsburgh Pipe & Iron Co., McKees

Rocks, Pa.

Frank Samuel, 15th and Market Sta.,

Philadelphia, Pa.

Shook & Fletcher, Birmingham, Ala.

Thompson-Bonney Co., Brooklyn, N. Y.
Jacob Ullman, Buffalo, N. Y.
Wickes Bros., Saginaw, Mich.
Pipe Mill Machinery—
National Machinery Co., Tiffin, O.
Stoever Foundry & Mfg. Co., Myers-
town, Pa.
Taylor-Wilson Mfg. Co., McKees Rocks,
Pa.

Pipe Mill Machinery, Clay—
Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Pipe, Oil Well—
La Belle Iron Works, Steubenville, O.
National Tube Co., Pittsburgh, Pa.
Youngstown Sheet & Tube Co., Youngs-
town, O.

Pipe Patches—
Smith & Hemenway Co., 108-110 Duane
St., New York.

Pipe Plants, Riveted—
Hilles & Jones Co., Wilmington, Del.
Wm. B. Scaife & Sons Co., Pittsburgh.

Pipe Polishing Machines—
Standard Engineering Co., Ellwood City,
Pa.

Pipe, Riveted Steel—
American Spiral Pipe Works, 1173-1201 S.
Paulina St., Chicago, Ill.
East Jersey Pipe Co., Paterson, N. J.
S. Freeman & Sons Mfg. Co., Racine, Wis.
E. Keeler Co., Williamsport, Pa.
Meehan Boiler & Construction Co., Low-
ellville, O.
Pennsylvania Engineering Works, New
Castle, Pa.

Phoenix Iron Works Co., Meadville, Pa.
Giter-Conley Mfg. Co., Pittsburgh, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh.
Stirling Blower & Pipe Mfg. Co., Hart-
ford, Ct.

Pipe, Sewer and Culvert—
Laclede Fire Brick Mfg. Co., St. Louis.
Cnas. Millar & Son Co., Utica, N. Y.

Pipe Sleeve Nuts—
(See Nuts, Pipe Sleeve.)

**Pipe Socket Reaming Ma-
chines—**
National Machinery Co., Tiffin, O.
Taylor-Wilson Mfg. Co., McKees Rocks,
Pa.

**Pipe Socket Tapping Ma-
chines—**
National Machinery Co., Tiffin, O.
Taylor-Wilson Mfg. Co., McKees Rocks,
Pa.

Pipe, Steel—
American Spiral Pipe Works, 1173-1201 S.
Paulina St., Chicago, Ill.
Avery Stamping Co., Cleveland, O.
Berger Mfg. Co., Canton, O.
W. J. Clark Co., Salem, O.
East Jersey Pipe Co., Paterson, N. J.
E. Keeler Co., Williamsport, Pa.
National Tube Co., Pittsburgh, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh.
Youngstown Sheet & Tube Co., Youngs-
town, O.

MERCHANTS—
Bourne-Fuller Co., Cleveland, O.
McClellan & Orr, Monadnock Block, Chi-
cago, Ill.
Pittsburgh Pipe & Iron Co., McKees
Rocks, Pa.

**Scully Steel & Iron Co., 69 N. Halsted
St., Chicago, Ill.**

Shook & Fletcher, Birmingham, Ala.
Wickes Bros., Saginaw, Mich.
Pipe, Stove—
Edwards Mfg. Co., Cincinnati, O.
Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.
S. M. Howes Co., Boston, Mass.
Reeves Mfg. Co., Canal Dover, O.

**Pipe Straightening Ma-
chines—**
(See Straightening Machines, Pipe.)
Pipe Strainers, Conductor—
(See Strainers, Conductor Pipe.)

Pipe Testing Machines—
(See Testing Presses, Pipe.)

Pipe Unions—
(See Unions, Pipe.)

Pipe, Wooden—
E. B. Estes & Sons, 45-47 John St., New
York.

**Pipe Wrenches, Adjustable
S—**
(See Wrenches, Adjustable S Pipe.)

Pipe, Wrought Iron—
(See Pipe, Merchant.)

Pipes, Blow—
Penn Engineering Works, New Castle, Pa.

Pipes, Chain—
W. & J. Tiebout, 118 Chambers St., N. Y.

Pipes, Flush and Supply—
Fleuger & Henger Mfg. Co., St. Louis, Mo.
Whitlock Coil Pipe Co., Hartford, Ct.

Piping Work, Galvanized—
Stirling Blower & Pipe Mfg. Co., Hart-
ford, Ct.

B. F. Sturtevant Co., Boston, Mass.
Pistol Pockets, Rubber—
(See Pockets, Pistol, Rubber.)

Pistols and Revolvers—
Ames Sword Co., Chicopee, Mass.
Colt's Pat. Fire Arms Mfg. Co., Hart-
ford, Ct.

Marlin Fire Arms Co., New Haven, Ct.
Remington Arms Co., 313 Broadway, N. Y.
Otis A. Smith, Rockfall, Ct.
J. Stevens Arms & Tool Co., Chicopee
Falls, Mass.

**Piston Packing, Rings,
Rods—**
(See Packing, Rings, Rods.)

Pitch—
H. W. Johns-Manville Co., 100 William
St., New York.

Pitcher Spout Pumps—
(See Pumps, Cistern, Pitcher, Spout, &c.)
**Pitchers, Beer, Wine, Syrup,
&c., Silver Plated—**

International Silver Co., 9-13 Maiden
Lane, New York.

Pitchers, Metal—
Republic Metalware Co., Buffalo, N. Y.
**Pitching Machines, Barrel
and Keg—**

Pawling & Harnischfeger, Milwaukee, Wis.

Pits, Soaking—
G. W. McClure, Son & Co., Pittsburgh.
Wm. Swindell & Bros., Pittsburgh, Pa.

Pivots, Door—
Bonner Bros., Brooklyn, N. Y.
Lawson Mfg. Co., 40 Dearborn St., Chi-
cago, Ill.

**Plane Gauges, Irons,
Handles—**
(See Gauges, Irons, Handles.)

Plane Irons, Toy—
(See Toy Plane Irons.)

- Plane Stops—**
 Chapin-Stephens Co., Pine Meadow, Ct.
Planer Centers, Chucks, &c.—
 (See Centers, Chucks, &c.)
Planer Knife Files, Grinders—
 (See Files, Grinders.)
Planer Tools for Curved Surfaces—
 Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
Planers, Armor Plate—
 Niles-Bement-Pond Co., 111 Broadway, New York.
Planers, Buzz—
 Badger State Machine Co., Janesville, Wis.
 Greaves, Klusman & Co., Cincinnati, O.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Oliver Machinery Co., Grand Rapids, Mich.
 Louis E. Reichtin & Bro., Cincinnati, O.
MERCHANTS.
 Hill, Clarke & Co., Boston, Mass.
 Wickes Bros., Saginaw, Mich.
Planers, Duplex, Cut Both Ways—
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Woodward & Powell Planer Co., Worcester, Mass.
Planers, Frog and Switch—
 Mark Flather Planer Co., Nashua, N. H.
 Woodward & Powell Planer Co., Worcester, Mass.
Planers, Gear—
 Gleason Works, Rochester, N. Y.
Planers, Locomotive Cylinder and Frame—
 Morton Mfg. Co., Muskegon Heights, Mich.
 Woodward & Powell Planer Co., Worcester, Mass.
Planers, Locomotive Rod—
 Woodward & Powell Planer Co., Worcester, Mass.
Planers, Metal—
 American Tool Works Co., Cincinnati, O.
 Betts Machine Co., Wilmington, Del.
 Cincinnati Planer Co., Cincinnati, O.
 Detrick & Harvey Machine Co., Baltimore, Md.
 Fairbanks Co., 416 Broome St., New York.
 Mark Flather Planer Co., Nashua, N. H.
 Garvin Machine Co., Spring and Varick Sts., New York.
 Gleason Works, Rochester, N. Y.
 Edwin Harrington, Son & Co. (Inc.), Philadelphia, Pa.
 Hendey Machine Co., Torrington, Ct.
 Hilles & Jones Co., Wilmington, Del.
 J. J. McCabe, 14 Dey St., New York.
 Morton Mfg. Co., Muskegon Heights, Mich.
 New Haven Mfg. Co., New Haven, Ct.
 Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Pratt & Whitney Co., Hartford, Ct.
 Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
 Whitcomb-Halsdell Machine Tool Co., Worcester, Mass.
 W. A. Wilson Machine Co., Rochester, N. Y.
- Woodward & Powell Planer Co., Worcester, Mass.
MERCHANTS.
 Geo. E. Atleck, 109 Liberty St., N. Y.
 Baird Machinery Co., Pittsburgh, Pa.
 Brown & Zornian Machinery Co., Pittsburgh, Pa.
 Columbus Equipment Co., Columbus, O.
 J. H. Dawson Machinery Co., 39 S. Canal St., Chicago, Ill.
 Hill, Clarke & Co., Boston, Mass.
 Manning, Maxwell & Moore, 85 Liberty St., New York.
 Marshall & Buschart Machinery Co., 62-64 So. Canal St., Chicago, Ill.
 McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.
 Motch & Merryweather Machinery Co., Cleveland, O.
 New York Machinery Depot, 129 Broadway, New York.
 Prentiss Tool & Supply Co., 115 Liberty St., New York.
 W. L. Sargent, Fitchburg, Mass.
 L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.
 H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
 Thompson-Bonney Co., Brooklyn, N. Y.
 Thornton Machinery Co., Providence, R. I.
 Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.
 Jacob Ullman, Buffalo, N. Y.
 Vandyck, Churchill Co., 8 Dey St., N. Y.
 William Ward, Pittsburgh, Pa.
 Wickes Bros., Saginaw, Mich.
 C. C. Wormer Machinery Co., Detroit.
Planers, Miter—
 Miller Falls Co., 28 Warren St., N. Y.
Planers, Open Side—
 Detrick & Harvey Machine Co., Baltimore, Md.
 Mark Flather Planer Co., Nashua, N. H.
 Niles-Bement-Pond Co., 111 Broadway, New York.
Planers, Plate—
 Detrick & Harvey Machine Co., Baltimore, Md.
 Hilles & Jones Co., Wilmington, Del.
 Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
Planers, Portable—
 Morton Mfg. Co., Muskegon Heights, Mich.
Planers, Radius Link—
 Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
Planers, Radius Link Attachment—
 Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
Planers, Rotary—
 Becker-Brainard Milling Machine Co., Hyde Park, Mass.
 Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
Planers, Stone—
 American Tool Works Co., Cincinnati, O.
 Birmingham Iron Foundry, Derby, Ct.
 Farrel Foundry & Mach. Co., Ansonia, Ct.
 F. R. Patch Mfg. Co., Rutland, Vt.
Planers, Valve Seat—
 Niles-Bement-Pond Co., 111 Broadway, New York.

- Quincy, Manchester, Sargent Co., Old Colony Bldg. Chicago, Ill.
 Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
 H. B. Underwood & Co., 1025 Hamilton St., Philadelphia, Pa.
Planers, Wall-
 Niles-Bement-Pond Co., 111 Broadway, New York.
Planers, Wood Working-
 Defiance Machine Works, Defiance, O.
 Greaves, Klusman & Co., Cincinnati, O.
 Humphrey Machine Co., Keene, N. H.
 Lane Mfg. Co., Montpelier, Vt.
 Oliver Machinery Co., Grand Rapids, Mich.
 Louis E. Reichtin & Bro., Cincinnati, O.
Planers, Ice-
 (See Ice Harvesting Tools.)
Planers, Iron-
 Sandusky Tool Co., Sandusky, O.
 Stanley Rule & Level Co., New Britain, Ct.
 Tower & Lyon Co., 95 Chambers St., New York.
 Union Mfg. Co., New Britain, Ct.
Planers, Variable Bench-
 Otis A. Smith, Rockfall, Ct.
Planers, Wood-
 Chapin-Stephens Co., Pine Meadow, Ct.
 Sandusky Tool Co., Sandusky, O.
 Stanley Rule & Level Co., New Britain, Ct.
 Union Mfg. Co., New Britain, Ct.
Planimeters-
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
 Crosby Steam Gauge & Valve Co., Boston.
 Keuffel & Esser Co., 127 Fulton St., N. Y.
Planing Machines, Connecting Rod-
 Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
Planing Machines, Valve Seat Rotary-
 H. B. Underwood & Co., 1025 Hamilton St., Philadelphia, Pa.
Planing Mill Machinery-
 Defiance Machine Works, Defiance, O.
 Oliver Machinery Co., Grand Rapids, Mich.
 Wickes Bros., Saginaw, Mich.
Plant Labels-
 (See Labels, Plant or Tree.)
Plantation Checks-
 (See Checks, Plantation.)
Planters and Drills, Corn-
 F. E. Kohler & Co., Canton, O.
 J. E. Porter Co., Ottawa, Ill.
 Warsaw Elevator Co., Warsaw, N. Y.
Planters, Cotton-
 R. W. Whitehurst Co., Norfolk, Va.
Planters, Hoe-
 (See Hoes, Eye.)
Planters, Potato-
 Bateman Mfg. Co., Grenloch, N. J.
Plastering Trowels-
 (See Trowels, Brick, Plastering, &c.)
Plate, Armor-
 Carnegie Steel Co., Pittsburgh, Pa.
Plate, Black, for Tinning-
 American Sheet & Tin Plate Co., Pittsburgh, Pa.
 N. & G. Taylor Co., Chestnut and Third Sts., Philadelphia, Pa.
Plate Casters, Hinges-
 (See Casters, Hinges.)
Plate Handles, Wire-
 (See Household Articles, Wire.)
Plate, Tack-
 La Belle Iron Works, Steubenville, O.
Plate, Tin and Terne-
 American Sheet & Tin Plate Co., Pittsburgh, Pa.
 Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
 Follansbee Bros. Co., Pittsburgh, Pa.
 Garry Iron & Steel Co., Cleveland, O.
 Merchant & Evans Co., 517 Arch St., Philadelphia, Pa.
 Standard Tin Plate Co., Canonsburg, Pa.
 N. & G. Taylor Co., Chestnut and Third Sts., Philadelphia, Pa.
MERCHANTS-
 Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
 Arthur C. Harvey Co., Boston, Mass.
 J. H. Hillman & Son, Pittsburgh, Pa.
 Phillips-Laffitte Co., Pennsylvania Bldg., Philadelphia, Pa.
 Scully Steel & Iron Co., Halsted and Wayne Sts., Chicago, Ill.
 Waite, Ranlet & Co., Boston, Mass.
Platers' Metal-
 (See Metal, Platers' or Gold.)
Platers, Metal or Gold-
 (See Metal.)
Platers' Supplies-
 (See Polishing and Buffing Supplies.)
Plates and Hooks, Window-
 Peck Stow & Wilcox Co., 27 Murray St., New York.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
 Yale & Towne Mfg. Co., 9-15 Murray St., New York.
Plates and Signs, Post Office-
 Eagle Lock Co., Terryville, Ct.
Plates and Stubs, Store Shutter-
 (See Stubs and Plates, Store Shutter.)
Plates and Wheels, Sheave-
 Mathew Lanz & Sons, Pittsburgh, Pa.
Plates, Aluminum-Steel-
 Duplex Metals Co., 228 Fifth Ave., N. Y.
Plates, Ball Mill-
 Taylor Iron & Steel Co., High Bridge, N. J.
Plates, Black for Deen Stamping-
 N. & G. Taylor Co., Chestnut & Third Sts., Philadelphia, Pa.
Plates, Bolster-
 American Steel Foundries, Fisher Bldg., Chicago, Ill.
 Plenger & Henger Mfg. Co., St. Louis, Mo.
 Republic Iron & Steel Co., Chicago, Ill.
 A. C. Williams, Ravenna, O.
Plates, Brass Step-
 W. & J. Tiebout, 118 Chambers St., N. Y.
Plates, Bronze-Steel-
 Duplex Metals Co., 228 Fifth Ave., N. Y.
Plates, Butter and Pie-
 E. R. Estes & Sons, 45-47 John St., New York.
Plates, Car Door-
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Plates, Carriage and Wagon-
 (See Plates, Name.)
Plates, Centrifugal Machine Perforated-
 Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.
Chas. Mundt & Sons, 441 Pearl St., N. Y.

Plates, Charcoal Iron Boiler—

Seidel & Hastings Co., Wilmington, Del.

Plates, Copper Steel—

Duplex Metals Co., 208 Fifth Ave., N. Y.

Plates, Deck or Man Hole—

W. & J. Tiebout, 118 Chambers St., N. Y.

Plates, Die—

Butterfield & Co., Derby Line, Vt.

Plates, Door—

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Schwerdtle Stamp Co., Bridgeport, Ct.

Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.

Plates, Driveway, Cast Iron—

Rock River Mfg. Co., Dixon, Ill.

Plates, Drop Letter—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Plates, Fellow—

Avery Stamping Co., Cleveland, O.

John R. Keim Mills, Buffalo, N. Y.

McKinney Mfg. Co., Allegheny, Pa.

J. H. Sessions & Son, Bristol, Ct.

Upson Nut Co., Cleveland, O.

Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

Wrought Washer Mfg. Co., Milwaukee, Wis.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

Plates, Filter Press Perforated—

Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.

Chas. Mundt & Sons, 441 Pearl St., N. Y.

Plates, Fish—

Arthur Koppel Co., 66-68 Broad St., New York.

Republic Iron & Steel Co., Chicago, Ill.

Plates, Floor and Ceiling—

Belmont Iron Works, Inc., Philadelphia.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Harold McCalla, 619 N. Front St., Philadelphia, Pa.

Parker Wire Goods Co., Worcester, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Sligo Iron & Steel Co., Pittsburgh, Pa.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Plates, Gunnet, Steel—

Avery Stamping Co., Cleveland, O.

Plates, Hand Hole—

Indianapolis Drop Forging Co., Indianapolis, Ind.

Plates, Heel and Sole—

Parker Wire Goods Co., Worcester, Mass.

Root Bros. Co., Plymouth, O.

Louis Sacks, Newark, N. J.

Plates, Hinge, Corner and Center—

American Ring Co., Waterbury, Ct.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Plates, Hot, Electric—

General Electric Co., Schenectady, N. Y.

Plates, Hot, Gas—

Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.

Fanner Mfg. Co., Cleveland, O.

Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

Taylor & Boggis Foundry Co., Cleveland.

Plates, Hound—

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Plates, Iron and Steel—

Allegheny Steel Co., Pittsburgh, Pa.

American Sheet & Tin Plate Co., Pittsburgh, Pa.

Carnegie Steel Co., Pittsburgh, Pa.

Central Iron & Steel Co., Harrisburg, Pa.

Chrome Steel Works, Chrome, N. J.

John Eichleay, Jr., Co., Pittsburgh, Pa.

Follansbee Bros. Co., Pittsburgh, Pa.

Forest City Steel & Iron Co., Cleveland.

Jones & Laughlin Steel Co., Pittsburgh.

La Belle Iron Works, Steubenville, O.

Lukens Iron & Steel Co., Coatesville, Pa.

Otis Steel Co., Ltd., Cleveland, O.

Passaic Steel Co., Paterson, N. J.

Republic Iron & Steel Co., Chicago, Ill.

Seidel & Hastings Co., Wilmington, Del.

Shenango Iron & Steel Co., Pittsburgh.

Sligo Iron & Steel Co., Pittsburgh, Pa.

N. & G. Taylor Co., Chestnut and Third Sts., Philadelphia, Pa.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

J. Wood & Bros. Co., Conshohocken, Pa.

Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Belmont Iron Works, Inc., Philadelphia.

Bourne-Fuller Co., Cleveland, O.

Justice Cox, Jr., & Co., Land Title Bldg., Philadelphia, Pa.

Denman & Davis, 85-87 John St., New York.

Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.

Arthur C. Harvey Co., Boston, Mass.

J. H. Hillman & Son, Pittsburgh, Pa.

C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.

Ernest Law & Co., 15th and Market Sts., Philadelphia, Pa.

Henry Levis & Co., 26 So. 15th St., Philadelphia, Pa.

Harold McCalla, 619 N. Front St., Philadelphia, Pa.

McClernan & Orr, Monadnock Block, Chicago, Ill.

John B. Newkirk & Co., 15th and Market Sts., Philadelphia, Pa.

Ogden & Wallace, 577 Greenwich St., New York.

Pierson & Co., 29 Broadway, N. Y.

Pittsburgh Steel Construction Co., Pittsburgh, Pa.

Horace T. Potts & Co., 316-320 No. 3d St., Philadelphia, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

G. H. Schrock, 291 Pearl St., New York.
Scully Steel & Iron Co., Halsted and
Wayman Sts., Chicago, Ill.

Wheeler, Mifflin & Co., Philadelphia, Pa.
Plates, Iron and Steel, Cor-
rugated—

Carnegie Steel Co., Pittsburgh, Pa.
Plates, Iron and Steel
Punched—

Harrington & King Perforating Co., 224
N. Union St., Chicago, Ill.

Plates, Mending—
Griffin Mfg. Co., Erie, Pa.

National Mfg. Co., Sterling, Ill.
Stanley Works, New Britain, Ct.

Plates, Name—
American Railway Supply Co., 24 Park
Place, New York.

Bridgeport, Ioxidized Bronze & Metal
Co., Bridgeport, Ct.

Imperial Brass Mfg. Co., 241 S. Jefferson
St., Chicago, Ill.

Murdock-Shaw Co., Boston, Mass.
Geo. M. Ness, Jr., 61 Fulton St., N. Y.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers
St., New York.

Arthur T. Rutter & Co., 256 Broadway,
New York.

Schwerdtle Stamp Co., Bridgeport, Ct.
Scovill Mfg. Co., Waterbury, Ct.

I. S. Spencer's Sons, Guilford, Ct.
Turner Brass Works, 44 No. Franklin St.,
Chicago, Ill.

Plates, Number—
Eagle Lock Co., Terryville, Ct.

Plates, Perforated Mangan-
ese Steel—

Taylor Iron & Steel Co., High Bridge,
N. J.

Plates, Perforated Metal—
Hendrick Mfg. Co., Carbondale, Pa.

Chas. Mundt & Sons, 441-447 Pearl St.,
New York.

Plates, Perforated Sifter
and Screen—

Harrington & King Perforating Co., 224
N. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.
Chas. Mundt & Sons, 441-447 Pearl St.,
New York.

Taylor Iron & Steel Co., High Bridge,
N. J.

Plates, Pine Hook, Steel—
Avery Stamping Co., Cleveland, O.

Plates, Push, Pull and Kick—
Hommer Bros., Brooklyn, N. Y.

Chicago Spring Bar Co., Chicago, Ill.
Glen Mfg. Co., Ellwood City, Pa.

U. T. Hungerford Brass & Copper Co.,
497-505 Pearl St., New York.

Imperial Brass Mfg. Co., 241 S. Jefferson
St., Chicago, Ill.

Pleuger & Henger Mfg. Co., St. Louis, Mo.
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers
St., New York.

Shelby Spring Hinge Co., Shelby, O.
Taylor & Boggs Foundry Co., Cleveland.

Turner Brass Works, Franklin & Michi-
gan Sts., Chicago, Ill.

Yale & Towne Mfg. Co., 9-15 Murray St.,
New York.

Plates, Safe Burglar Proof—
Chrome Steel Works, Chrome, N. J.

Plates, Screw—
Charles H. Besly & Co., 15-21 Clinton St.,
Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.
Butterfield & Co., Derby Line, Vt.
J. M. Carpenter Tap & Die Co., Paw-
tucket, R. I.

Champion Blower & Forge Co., Lancas-
ter, Pa.

Hart Mfg. Co., Cleveland, O.
Morse Twist Drill & Machine Co., New
Bedford, Mass.

Prait & Whitney Co., Hartford, Ct.
E. F. Reece Co., Greenfield, Mass.

Wells Bros. Co., Greenfield, Mass.
Wiley & Russell Mfg. Co., Greenfield,
Mass.

Plates, Screw Bicycle—
Butterfield & Co., Derby Line, Vt.

Plates, Silver-Steel—
Duplex Metals Co., 208 Fifth Ave., N. Y.

Plates, Sketch, Steel—
Avery Stamping Co., Cleveland, O.

Plates, Steel Blue—
Standard Tin Plate Co., Canonsburg, Pa.

Plates, Tire Setting, Iron—
Wells Bros. Co., Greenfield, Mass.

Plates, Tunnel, Cast Iron—
Leigh Foundry Co., Fullerton, Pa.

Plates, Ventilating—
(See Iron Work, Builders'.)

Plates, Wagon End Gate—
Lawrence Bros., Sterling, Ill.

Plates, Whiffletree—
Walter W. Woodruff & Sons Co., Mount
Carmel, Ct.

Plates, Zinc—
Matthiesen & Hegeler Zinc Co., La
Salle, Ill.

Sandoval Zinc Co., 122 N. Peoria St.,
Chicago, Ill.

Platform Scales—
(See Scales, Platform.)

Plating, Brass—
Schreiber & Conchar Mfg. Co., Dubuque,
Ia.

W. & S. Mfg. Co., Worcester, Mass.

Plating, Copper—
Ohio Brass Co., Mansfield, O.

Schreiber & Conchar Mfg. Co., Dubuque,
Ia.

Turner Brass Works, Franklin & Michi-
gan Sts., Chicago, Ill.

W. & S. Mfg. Co., Worcester, Mass.

Plating, Electro—
Blake & Johnson, Waterbury, Ct.

J. W. Clark, Albany, N. Y.
Erie Stamping & Mfg. Co., Erie, Pa.

John R. Keim Mills, Buffalo, N. Y.
Ludlow-Saylor Wire Co., St. Louis, Mo.

Ohio Brass Co., Mansfield, O.
John A. Peckham, New Haven, Ct.

Pleuger & Henger Mfg. Co., St. Louis, Mo.
Raymond Mfg. Co., Corry, Pa.

John B. Shannon & Sons, 816 Chestnut
St., Philadelphia, Pa.

Ira B. Smith, Bristol, Ct.
I. S. Spencer's Sons, Guilford, Ct.

Taylor & Boggs Foundry Co., Cleve-
land, O.

W. & S. Mfg. Co., Worcester, Mass.

Plating, Nickel—
Blake & Johnson, Waterbury, Ct.

J. W. Clark, Albany, N. Y.
John R. Keim Mills, Buffalo, N. Y.

Ludlow-Saylor Wire Co., St. Louis, Mo.
Ohio Brass Co., Mansfield, O.

John A. Peckham, New Haven, Ct.
Raymond Mfg. Co., Corry, Pa.

Schreiber & Conchar Mfg. Co., Dubuque,
Ia.

- J. B. Shannon & Sons, 816 Chestnut St., Philadelphia, Pa.
 I. S. Spencer's Sons, Guilford, Ct.
 Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.
 W. & S. Mfg. Co., Worcester, Mass.
- Plating Supplies, Electro—**
 (See Electro Plating Supplies.)
- Platinum—**
 Baker & Co., Inc., Newark, N. J.
 J. Bishop & Co., Malvern, Pa.
 J. H. Amend, 205 3d Ave., N. Y.
- Platinum Laboratory Utensils—**
 Baker & Co., Inc., Newark, N. J.
- Platinum Plates—**
 Edwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
- Platinum Ware—**
 (See Ware, Platinum.)
- Pliers, Aligning—**
 Tower & Lyon Co., 95 Chambers St., N. Y.
- Pliers, Belt Punch—**
 Wm. Schollhorn Co., New Haven, Ct.
- Pliers, Button's—**
 John H. Graham & Co., 113 Chambers St., New York.
- Schuchardt & Schutte, 136 Liberty St., New York.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Vaughan & Bushnell Mfg. Co., Chicago.
- Pliers, Chain, Needle and Reamer Nose—**
 Alfred Field & Co., 93 Chambers St., New York.
- Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Wm. Schollhorn Co., New Haven, Ct.
- Schuchardt & Schutte, 136 Liberty St., New York.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Champagne—**
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Combination—**
 Athol Machine Co., Athol, Mass.
- Billings & Spencer Co., Hartford, Ct.
- Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- Cronk & Carrier Mfg. Co., Elmira, N. Y.
- Alfred Field & Co., 93 Chambers St., New York.
- Indianapolis Drop Forging Co., Indianapolis, Ind.
- Kilborn & Bishop Co., New Haven, Ct.
- J. M. King & Co., Waterford, N. Y.
- Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Richmond Forgings Corporation, Richmond, Va.
- Wm. Schollhorn Co., New Haven, Ct.
- Schuchardt & Schutte, 136 Liberty St., New York.
- Tower & Lyon Co., 95 Chambers St., New York.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Curved Nose—**
 Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Cutting, End, Side and Diagonal—**
 Billings & Spencer Co., Hartford, Ct.
- Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- Cronk & Carrier Mfg. Co., Elmira, N. Y.
- Alfred Field & Co., 93 Chambers St., New York.
- John H. Graham & Co., 113 Chambers St., New York.
- Kilborn & Bishop Co., New Haven, Ct.
- Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Wm. Schollhorn Co., New Haven, Ct.
- Schuchardt & Schutte, 136 Liberty St., New York.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Drill Rod—**
 Wm. Schollhorn Co., New Haven, Ct.
- Pliers, Electricians'—**
 Billings & Spencer Co., Hartford, Ct.
- Cronk & Carrier Mfg. Co., Elmira, N. Y.
- John H. Graham & Co., 113 Chambers St., New York.
- Kilborn & Bishop Co., New Haven, Ct.
- Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Wm. Schollhorn Co., New Haven, Ct.
- Schuchardt & Schutte, 136 Liberty St., New York.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Farmers'—**
 Kilborn & Bishop Co., New Haven, Ct.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Fencing—**
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- Kilborn & Bishop Co., New Haven, Ct.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Flat and Round Nose—**
 Billings & Spencer Co., Hartford, Ct.
- Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- Columbia Grey Iron Co., Columbia, Pa.
- Cronk & Carrier Mfg. Co., Elmira, N. Y.
- Alfred Field & Co., 93 Chambers St., New York.
- Kilborn & Bishop Co., New Haven, Ct.
- Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Wm. Schollhorn Co., New Haven, Ct.
- Schuchardt & Schutte, 136 Liberty St., New York.
- Tower & Lyon Co., 95 Chambers St., New York.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Gas Burner and Pipe—**
 Billings & Spencer Co., Hartford, Ct.
- Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- Columbia Grey Iron Co., Columbia, Pa.
- Cronk & Carrier Mfg. Co., Elmira, N. Y.
- Alfred Field & Co., 93 Chambers St., New York.

Indianapolis Drop Forging Co., Indianapolis, Ind.
 Kilborn & Bishop Co., New Haven, Ct.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 D. Saunders' Sons, Yonkers, N. Y.
 Wm. Schollhorn Co., New Haven, Ct.
 Schuchardt & Schutte, 136 Liberty St., New York.
 Smith & Egge Mfg. Co., Bridgeport, Ct.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Tower & Lyon Co., 95 Chambers St., New York.
 Utica Drop Forge & Tool Co., Utica, N. Y.
 Vaughan & Bushnell Mfg. Co., Chicago.
 A. C. Williams, Ravenna, O.

Pliers, Glass—
 Schuchardt & Schutte, 136 Liberty St., New York.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Tower & Lyon Co., 95 Chambers St., New York.
 Utica Drop Forge & Tool Co., Utica, N. Y.

Pliers, Heat Coil—
 Utica Drop Forge & Tool Co., Utica, N. Y.

Pliers, Jewelers'—
 Schuchardt & Schutte, 136 Liberty St., New York.
 Utica Drop Forge & Tool Co., Utica, N. Y.

Pliers, Knot Tying and Splicing—
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
 Kilborn & Bishop Co., New Haven, Ct.
 Utica Drop Forge & Tool Co., Utica, N. Y.

Pliers, Lineman's—
 Alfred Field & Co., 93 Chambers St., New York.
 John H. Graham & Co., 113 Chambers St., New York.
 Kilborn & Bishop Co., New Haven, Ct.
 Schuchardt & Schutte, 136 Liberty St., New York.
 Utica Drop Forge & Tool Co., Utica, N. Y.

Pliers, Opticians'—
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Utica Drop Forge & Tool Co., Utica, N. Y.

Pliers, Piano Makers'—
 Schuchardt & Schutte, 136 Liberty St., New York.
 Tower & Lyon Co., 95 Chambers St., New York.

Pliers, Tire Plugging—
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Wm. Schollhorn Co., New Haven, Ct.
 Utica Drop Forge & Tool Co., Utica, N. Y.

Pliers, Vice—
 Wm. Schollhorn Co., New Haven, Ct.

Pliers, Weavers'—
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Schuchardt & Schutte, 136 Liberty St., New York.
 Utica Drop Forge & Tool Co., Utica, N. Y.

Pliers, Webbing—
 Tower & Lyon Co., 95 Chambers St., New York.

Plow Bolts, Castings, &c.—
 (See Bolts, Castings, &c.)

Plow Handle Machines—
 (See Handle Machines, Plow.)

Plows—
 Cutaway Harrow Co., Higanum, Ct.
 W. C. Heller & Co., Montpelier, O.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
 Long & Alistatter Co., Hamilton, O.
 Syracuse Chilled Plow Co., Syracuse, N. Y.
 J. Thompson & Sons Mfg. Co., Beloit, Wis.
 R. W. Whitehurst Co., Norfolk, Va.

Plows, Hand and Wheel—
 Bateman Mfg. Co., Grenloch, N. J.

Plows, Ice—
 (See Ice Harvesting Tools.)

Plug Gauges—
 (See Gauges, Plug and Ring.)

Plugs, Boiler Flue—
 McNab & Harlin Mfg. Co., 50-56 John St., New York.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
 Walworth Mfg. Co., Boston, Mass.

Plugs, Carriage Body—
 E. B. Estes & Sons, 45-47 John St., New York.

Plugs, Deck, Wooden—
 E. B. Estes & Sons, 45-47 John St., N. Y.

Plugs, Drift—
 E. B. Estes & Sons, 45-47 John St., New York.

Plugs, Flexible—
 McNab & Harlin Mfg. Co., 50-56 John St., New York.

Plugs, Fusible—
 Crosby Steam Gage & Valve Co., Boston.
 Lunkenheimer Co., Cincinnati, O.
 E. W. Vanduzen Co., Cincinnati, O.
 Walworth Mfg. Co., Boston, Mass.

Plugs, Paper Roll—
 E. B. Estes & Sons, 45-47 John St., N. Y.

Plugs, Plumbers'—
 E. B. Estes & Sons, 45-47 John St., New York.

Plugs, Sand—
 E. B. Estes & Sons, 45-47 John St., New York.

Plugs, Tie—
 E. B. Estes & Sons, 45-47 John St., New York.

Plumb Bobs—
 (See Bobs, Plumb.)

Plumbago—
 (See Graphite.)

Plumbago Electrophying—
 (See Electrophying, Plumbago.)

Plumbago Shapes—
 (See Shapes, Plumbago.)

Plumbers—
 C. B. Chadwick Co., Portsmouth, N. H.

Plumbers' Brass Goods—
 (See Cocks, Brass.)

Plumbers' Furnaces, Levels, &c.—
 (See Furnaces, Levels, &c.)

**Plumbing Supplies (Boiler
Stands, Legs and Lavatory
Fittings, Brackets, Closet
Pails, Pipe Straps, &c.)—**

Barnes Mfg. Co., Mansfield, O.
Columbia Grey Iron Casting Co., Colum-
bia, Pa.
Gray Iron Foundry Co., Reading, Pa.
Griffin Mfg. Co., Erie, Pa.
Humphreys Mfg. Co., Mansfield, O.
John C. Kuperle, St. Louis, Mo.
Lalancé & Grosjean Mfg. Co., 19 Cliff St.,
New York.
Chas. Millar & Son Co., Utica, N. Y.
H. Mueller Mfg. Co., Decatur, Ill.
Plengier & Henger Mfg. Co., St. Louis, Mo.
Smith & Esge Mfg. Co., Bridgeport, Ct.
Whitlock Coil Pipe Co., Hartford, Ct.
Wrightsville Hardware Co., Wrightsville,
Pa.

(See also Gaskets and Rings.)

**Plumbing Supplies, Rubber
(Plungers, Basin Plugs,
Fitter Hails, &c.)—**

H. O. Canfield Co., Bridgeport, Ct.
Plumbs and Levels—
Baker, McMillen Co., Akron, O.
Chapin-Stephens Co., Pine Meadow, Ct.
Henry Disston & Sons, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., 28 Warren St., N. Y.
Stanley Rule & Level Co., New Brit-
ain, Ct.
Tower & Lyon Co., 95 Chambers St.,
New York.

Plumes, Horse and Sleigh—
Borin Bros. Mfg. Co., East Hampton, Ct.

Plunger Rubbers—
(See Plumbing Supplies.)

Plungers, Boat—
(See Valves and Plungers.)

**Pneumatic Call Bells,
Hammers, &c.—**
(See Bells, Hammers, &c.)

Pneumatic Tools—
(See Compressed Air Tools and Tools,
Pneumatic.)

Punchers, Egg—

Republic Metalware Co., Buffalo, N. Y.

Pocket Cups, &c.—
(See Cups, &c.)

Pocket Knives—
(See Cutlery, Pocket.)

Pocket Wrenches—
(See Wrenches, Bicycle and Pocket.)

Pockets, Coal Handling—
C. W. Hunt Co., West New Brighton,
N. Y.

Link-Belt Engineering Co., Nicetown,
Philadelphia, Pa.

Pockets, Pistol, Rubber—
Tower & Lyon Co., 95 Chambers St.,
New York.

Pod Bits— (See Bits, Pod.)

Pointers, Blackboard—
E. B. Estes & Sons, 45-47 John St., New
York.

Pointers, Bolt—
Asa S. Cook Co., Hartford, Ct.
National Machinery Co., Tiffin, O.
Webster & Perks Tool Co., Springfield, O.

Pointers, Pencil—
Goodell Co., Antrim, N. H.

Pointers, Picket—
(See Picket Pointers.)

Pointers, Spike—
Millers Falls Co., 28 Warren St., N. Y.

Pointing Machines, Gimlet

Conch Screw—
National Machinery Co., Tiffin, O.

Pointing Machines, Pin—

Baird Machine Co., Oakville, Ct.
E. J. Manville Machine Co., Waterbury,
Ct.

**Pointing Machines, Rod and
Tube—**

Excelsior Needle Co., Torrington, Ct.
Henderson Bros., Waterbury, Ct.
Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Pointing Machines, Wire—

Baird Machine Co., Oakville, Ct.
Excelsior Needle Co., Torrington, Ct.
E. J. Manville Machine Co., Waterbury,
Ct.
Morgan Construction Co., Worcester,
Mass.

Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.
Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Wright Wire Co., Worcester, Mass.

Pointing Wire—

(See Wire Pointing.)

Points, Carbon and Dia-

mond—
Est. of John Dickinson, 64 Nassau St.,
New York.

Points, Diamond Graduat-

ing—
Est. of John Dickinson, 64 Nassau St.,
New York.

Points, Diamond Turning—

Chicago Wheel & Mfg. Co., 39-45 W. Rial-
dolph St., Chicago, Ill.

Est. of John Dickinson, 64 Nassau St.
Points, Glaziers, &c.—
Grand Crossing Tack Co., Grand Cross-
ing, Ill.

Shelton Co., Shelton, Ct.

Points, Trammel—

(See Trammels and Trammel Points.)

Points, Well—

(See Well Supplies and Tools.)

Pokers, Stove—

Arcade Mfg. Co., Freeport, Ill.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Russell & Erwin Mfg. Co., 4347 Cham-
bers St., New York.

Wire Goods Co., Worcester, Mass.
(See also Shovels, Tongs, Pokers, Fire
Sets.)

Pole Adjusters, Steps, Tips—

(See Adjusters, Steps, Tips.)

Poles, Curtain—

E. B. Estes & Sons, 45-47 John St., New
York.

Poles, Hose, Seamless Steel—

Shelby Steel Tube Co., Pittsburgh, Pa.

Poles, Iron Fire—

National Tube Co., Pittsburgh, Pa.

Poles, Pike—

Peter Gerlach Co., Cleveland, O.

Poles, Trolley—

R. D. Nuttall Co., Pittsburgh, Pa.

Shelby Steel Tube Co., Pittsburgh, Pa.

Police Goods—

Tower & Lyon Co., 95 Chambers St.,
New York.

Polish, Metal—

Geo. W. Hoffman, Indianapolis, Ind.

Polish, Stove—

Joseph Dixon Crucible Co., Jersey City.

Polishing and Buffing Supplies—

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Divine Bros. Co., Utica, N. Y.
Hanson & Van Winkle Co., Newark, N. J.
Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.
Republic Belting & Supply Co., Cleveland, O.
Sterling Emery Wheel Co., Tiffin, O.
Zucker & Levett & Loeb Co., 526-530 West 25th St., New York.

Polishing and Lacquering—
W. & S. Mfg. Co., Worcester, Mass.

Polishing Belts, Heads, Wheels—

(See Belts, Heads, Wheels.)

Polishing Leather for Dry Tumbling Barrels—

Peckham Mfg. Co., Newark, N. J.

Polishing Machines—

(See Buffing and Polishing Machines.)

Polishing Machines, Flat Surfaces—

Blake & Johnson, Waterbury, Ct.

Polishing Machines, Glass—

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Polishing Machines, Marble and Stone—

Ingersoll-Rand Co., 11 Broadway, New York.

F. R. Patch Mfg. Co., Rutland, Vt.

Polishing Machines, Portable, Wood and Metal—

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Polo Balls—

(See Balls, Bowling and Polo.)

Poppers, Corn—

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Delphos Can Co., Delphos, O.

Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Parker Wire Goods Co., Worcester, Mass.

Republic Metalware Co., Buffalo, N. Y.

Wickwire Bros., Cortland, N. Y.

Wire Goods Co., Worcester, Mass.

Porch Supports—

(See Supports, Porch.)

Portable Boring Machines, Drills, Furnaces, &c.—

(See Boring Machines, Drills, Furnaces, &c.)

Portables, Gas and Electric—

Turner & Seymour Mfg. Co., Torrington, Ct.

Porticoes, Ornamental—

(See Iron Work, Builders.)

Post Bases, Fence—

(See Caps and Bases.)

Post Hole Diggers—

(See Diggers.)

Post Office Equipment—

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Post Tops, Fence—

Anchor Post Iron Works, 41 Park Row, New York.

De Kalb Fence Co., De Kalb, Ill.

Chas. G. Eckstein, 249 Centre St., N. Y.

Post Tops, Hitching—

Anchor Post Iron Works, 41 Park Row, New York.

Postal Scales—

(See Scales, Postal.)

Posts, Bicycle Saddle—

John R. Keim Mills, Buffalo, N. Y.

Posts, Binding—

St. Louis Screw Co., St. Louis, Mo.

Posts, Cloth—

Anchor Post Iron Works, 41 Park Row, New York.

Posts, Fence—

Adam's Steel & Wire Works, Joliet, Ill.

Anchor Post Iron Works, 41 Park Row, New York.

Avery Stamping Co., Cleveland, O.

De Kalb Fence Co., De Kalb, Ill.

Enterprise Foundry & Fence Co., Indianapolis, Ind.

Ludlow-Saylor Wire Co., St. Louis, Mo.

National Wire Corporation, New Haven, Conn.

Ohio Structural Iron Co., Sandusky, O.

Wright Wire Co., Worcester, Mass.

Posts, Hitching—

Anchor Post Iron Works, 41 Park Row, New York.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Bicknell Mfg. & Supply Co., Janesville, Wis.

Covert Mfg. Co., Troy, N. Y.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Enterprise Foundry & Fence Co., Indianapolis, Ind.

Glen Mfg. Co., Ellwood City, Pa.

Kramer Bros. Foundry Co., Dayton, O.

Ludlow-Saylor Wire Co., St. Louis, Mo.

National Iron & Wire Co., Cleveland, O.

Stewart Iron Works Co., Cincinnati, O.

Van Dorn Iron Works Co., Cleveland, O.

West Side Foundry Co., Troy, N. Y.

Posts, Lamp—

Belmont Iron Works, Inc., Philadelphia.

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Stewart Iron Works Co., Cincinnati, O.

R. D. Wood & Co., 493 Chestnut St., Philadelphia, Pa.

Posts, Mooring—

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

R. W. Wintchurst & Co., Norfolk, Va.

Posts, Sign—

Anchor Post Iron Works, 41 Park Row, New York.

Posts, Tool—

O. K. Tool Holder Co., Shelton, Ct.

Pot Chains—

(See Kitchen Articles, Wire.)

Pot Covers—

(See Covers, Pot.)

Potato and Apple Parers—

(See Parers, Apple and Potato.)

Potato Cutters, Hooks, Mashers—

(See Cutters, Hooks, Mashers.)

Potato Machinery—

Bateman Mfg. Co., Grenloch, N. J.

Potato Mashers, Wire—

(See Kitchen Articles, Wire.)

Pots, Annealing, for Wire—

Meehan Boiler & Construction Co., Lowellville, O.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Pots, Chocolate, Tea, Coffee, &c., Silver Plated—

International Silver Co., 9-13 Maiden Lane, New York.

Pots, Galvanizing—

Meehan Boiler & Construction Co.,
Lowellville, O.

Pots, Glue—

Fanner Mfg. Co., Cleveland, O.
Hobbs Mfg. Co., Worcester, Mass.

Pots, Melting—

Byram & Co., Detroit, Mich.
Hollands Mfg. Co., Erie, Pa.

Pots, Slag—

Meehan Boiler & Construction Co.,
Lowellville, O.

Pennsylvania Engineering Works, New
Castle, Pa.

Pots, Solder—

Central Foundry Co., 116 Nassau St.,
New York.

John C. Kupferle, St. Louis, Mo.
Schneider & Trenkamp Co. Div., American
Stove Co., Cleveland, O.

Pots, Sprinkler—

(See Tinware, Piced and Stamped.)

Pots, Stove—

Avery Stamping Co., Cleveland, O.

Pots, Tallow—

American Tube & Stamping Co., Bridge-
port, Ct.

Gem Mfg. Co., Pittsburgh, Pa.
Johnson Mfg. Co., Urbana, O.

Pots, Tea and Coffee—

Republic Metalware Co., Buffalo, N. Y.

Pots, Teeming—

McCullough-Dalzell Crucible Co., Pitts-
burgh, Pa.

Pottery Machinery—

Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

Pouches, Shot—

Waterbury Brass Co., Waterbury, Ct.

Poultry Netting—

(See Netting, Wire.)

Pounders, Steak—

Arade Mfg. Co., Freeport, Ill.
R. H. Brown & Co., New Haven, Ct.

Fanner Mfg. Co., Cleveland, O.
Columbia Grey Iron Co., Columbia, Pa.

Landers, Frary & Clark, New Britain, Ct.
Parker Wire Goods Co., Worcester, Mass.

Peck, Stow & Wilcox Co., 2 Murray St.,
New York.

Rock River Mfg. Co., Dixon, Ill.
Sandusky Tool Co., Sandusky, O.

Stabley Rule & Level Co., New Britain, Ct.
Wagner Mfg. Co., Cedar Falls, Ia.

A. C. Williams, Ravenna, O.
Wrightsville Hardware Co., Wrightsville,
Pa.

Powder Flasks—

(See Flasks, Powder.)

Powder Keg Material—

J. Wood & Bros. Co., Conshohocken, Pa.

Powder Mill Machinery—

G. O. Bartlett & Snow Co., Cleveland, O.
Birmingham Iron Foundry, Derby, Ct.

Phosphor Bronze Smelting Co., 2200 Wash-
ington Ave., Philadelphia, Pa.

Power Hammers—

(See Hammers, Power.)

Power Transmission, Elec-**tric—**

General Electric Co., Schenectady, N. Y.
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Power Transmission Ma-**chinery—**

Bancroft & Co., Fifth & Chestnut Sts.,
Philadelphia, Pa.

Birmingham Iron Foundry, Derby, Ct.
Broderick & Bascom Rope Co., St. Louis.

Browning Engineering Co., Cleveland, O.
Hubl Malenbie Co., Detroit, Mich.

H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

W. E. Caldwell Co., Louisville, Ky.

Case Mfg. Co., Columbus, O.

Columbia Bridge Co., Pittsburgh, Pa.
Geo. V. Cresson Co., 18th St. and Alle-

gheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Fairbanks Co., 416 Broome St., New York.
Falls Rivet & Machine Co., Cuyahoga
Falls, O.

Farrel Fdy. & Mach. Co., Ansonia, Ct.
Fawcett Machine Co., Pittsburgh, Pa.

Howard Iron Works Co., Buffalo, N. Y.

Jeffrey Mfg. Co., Columbus, O.

Lane Mfg. Co., Montpelier, Vt.

A. Leschen & Sons Rope Co., St. Louis.

Link-Belt Engineering Co., Nicetown,
Philadelphia, Pa.

Northern Electrical Mfg. Co., Madison,
Wis.

Norwalk Iron Works Co., So. Norwalk,
Ct.

Poole Engineering & Machine Co., Balti-
more, Md.

Royersford Foundry & Machine Co.,
Royersford, Pa.

Saginaw Mfg. Co., Saginaw, Mich.
Standard Pressed Steel Co., 20th & Clear-

field Sts., Philadelphia, Pa.

Warsaw Elevator Co., Warsaw, N. Y.
Wickes Bros., Saginaw, Mich.

T. B. Wood's Sons Co., Chambersburg,
Pa.

MERCHANTS.

Carlin Machinery & Supply Co., Inc.,
Allegheny, Pa.

Case Mfg. Co., Columbus, O.

Patterson, Gottfried & Hunter, Ltd., 146
150 Centre St., New York.

H. A. Rogers Co., 19 John St., New York.
Frank Toomey, 127-131 N. 3d St., Phila-

delphia, Pa.

Power Transmission Sup-
plies—

Republic Belting & Supply Co., Cleve-
land, O.

Power Transmission, Ver-
tical Shaft—

Geo. V. Cresson Co., 18th St. and Alle-
gheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.
Falls Rivet & Machine Co., Cuyahoga
Falls, O.

T. B. Wood's Sons Co., Chambersburg,
Pa.

Powers, Foot—

Goodell-Pratt Co., Greenfield, Mass.

Powers, Horse—

W. & Douglas, Middletown, Ct.
S. Freeman & Sons Mfg. Co., Racine,
Wis.

Goulds Mfg. Co., Seneca Falls, N. Y.

Press Work—

(See Stamping, Sheet Metal Work.)

Presses, Arbor—

Fox Machine Co., Grand Rapids, Mich.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Presses, Balling—
Watson-Stillman Co., 46 Dey St., New
York.

R. W. Whitehurst & Co., Norfolk, Va.

Presses, Broaching—

Adriance Machine Works, Brooklyn, N. Y.
Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
John T. Burr & Sons, Brooklyn, N. Y.
Consolidated Press & Tool Co., 96-100 N.
Clinton St., Chicago, Ill.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Chas. Leffler & Co., Brooklyn, N. Y.
Pratt & Whitney Co., Hartford, Ct.
V. & O. Press Co., Brooklyn, N. Y.
Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.
Watson-Stillman Co., 46 Dey St., New
York.

Presses, Car Seal—
Theo. Hertz Metal Co., St. Louis, Mo.

Presses, Ceiling—
E. W. Bliss Co., Brooklyn, N. Y.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
George A. Ohl & Co., Newark, N. J.

Presses, Clay, Pipe, &c.—
Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Presses, Coining—
(See Coining Machinery.)

Presses, Copying—
Fairbanks Co., 416 Broome St., New York.
R. E. Kidder, Worcester, Mass.
Henry E. Pridmore, Chicago, Ill.

Presses, Cork—
Enterprise Mfg. Co., Philadelphia, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers
St., New York.

Presses, Cornice—
E. W. Bliss Co., Brooklyn, N. Y.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
George A. Ohl & Co., Newark, N. J.

Presses, Cotton—
R. W. Whitehurst & Co., Norfolk, Va.

Presses, Crank Pin—
Richard Dudgeon, 24-26 Columbia St.,
New York.
Watson-Stillman Co., 46 Dey St., N. Y.

Presses, Drain, Tile—
Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Presses, Drop—
(See Hammers, Drop.)

Presses, Electrotyp—
Watson-Stillman Co., 46 Dey St., New
York.

Presses, Envelope—
R. E. Kidder, Worcester, Mass.

Presses, Filter—
Chas. F. Elmes Engineering Works, 253-
259 Fulton St., Chicago, Ill.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Presses, Foot—
Adriance Machine Works, Brooklyn, N. Y.
Baird Machine Co., Oakville, Ct.
Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., 96-100 N.
Clinton St., Chicago, Ill.
Garvin Machine Co., Spring and Varick
Sts., New York.
Gould & Eberhardt, Newark, N. J.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Chas. Leffler & Co., Brooklyn, N. Y.
John Loyd Co., 558-562 Water St., New York.
E. J. Manville Machine Co., Waterbury,
Ct.
National Machinery Co., Tiffin, O.
Niagara Machine & Tool Works, Buffalo,
N. Y.

Niles-Bement-Pond Co., 111 Broadway,
New York.

George A. Ohl & Co., Newark, N. J.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

F. B. Shuster Co., New Haven, Ct.
Fred J. Swaine Co., St. Louis, Mo.
V. & O. Press Co., Brooklyn, N. Y.
Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Presses, Forging—

Adriance Machine Works, Brooklyn, N. Y.
Alliance Machine Co., Alliance, O.
Avery Stamping Co., Cleveland, O.
Beaudry & Co., Boston, Mass.
Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Chambersburg Engineering Co., Chambers-
burg, Pa.

Consolidated Press & Tool Co., 96-100 N.
Clinton St., Chicago, Ill.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Chas. Leffler & Co., Brooklyn, N. Y.
National Machinery Co., Tiffin, O.
Niagara Machine & Tool Works, Buffalo,
N. Y.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Power Specialty Co., 111 Broadway, New
York.

Wm. Sellers & Co. (Inc.), Philadelphia.
V. & O. Press Co., Brooklyn, N. Y.

Watson-Stillman Co., 46 Dey St., New
York.

Wickes Bros., Saginaw, Mich.

Presses, Fruit and Meat—

Atthol Machine Co., Atthol, Mass.
Enterprise Mfg. Co., Philadelphia, Pa.
Erie Specialty Co., Erie, Pa.
Fanner Mfg. Co., Cleveland, O.
Landers, Frary & Clark, New Britain, Ct.
R. W. Whitehurst & Co., Norfolk, Va.

Presses, Gang Tool—

Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Presses, Gun Cotton—
Wm. Sellers & Co. Inc., 18th and Hamil-
ton Sts., Philadelphia, Pa.

Presses, Hand—

Charles F. Elmes Engineering Works,
Morgan and Fulton Sts., Chicago, Ill.
John Loyd Co., 558-562 Water St., New
York.

Niagara Machine & Tool Works, Buffalo,
N. Y.

J. M. Robinson Mfg. Co., Cincinnati, O.

Presses, Hand and Power—

John Loyd Co., 558-562 Water St., New
York.
George A. Ohl & Co., Newark, N. J.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Presses, Hay—

J. E. Porter Co., Ottawa, Ill.
R. W. Whitehurst Co., Norfolk, Va.

Presses, Heavy Flanging—

Adriance Machine Works, Brooklyn, N. Y.
Alliance Machine Co., Alliance, O.
E. W. Bliss Co., Brooklyn, N. Y.
Chambersburg Engineering Co., Chambers-
burg, Pa.
Consolidated Press & Tool Co., 96-100
Clinton St., Chicago, Ill.

Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.
 W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
 Long & Allstatter Co., Hamilton, O.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Power Specialty Co., 111 Broadway, New York.
 Fred J. Swaine Co., St. Louis, Mo.
 Watson-Stillman Co., 46 Dey St., New York.
 Wickes Bros., Saginaw, Mich.

Presses, Hydraulic—

Aiton Machine Co., 126 Liberty St., New York.
 Alliance Machine Co., Alliance, O.
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
 Birmingham Iron Foundry, Derby, Ct.
 Chambersburg Engineering Co., Chambersburg, Pa.
 J. B. & J. M. Cornell, 239 11th Ave., New York.
 Richard Dudgeon, 24-26 Columbia St., New York.
 Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.
 Farrel Foundry & Mach. Co., Ansonia, Ct.
 Fischer Foundry & Machine Co., Pittsburgh, Pa.
 Mackintosh, Hemphill & Co., Pittsburgh.
 John H. McGowan Co., Cincinnati, O.
 Morgan Construction Co., Worcester, Mass.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.
 Power Specialty Co., 111 Broadway, New York.
 Wm. Sellers & Co., Inc., 1600 Hamilton St., Philadelphia, Pa.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
 Watson-Stillman Co., 46 Dey St., New York.
 Wickes Bros., Saginaw, Mich.
 Williams, White & Co., Moline, Ill.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Presses, Hydraulic Belting—

Chambersburg Engineering Co., Chambersburg, Pa.
 Chas. F. Elmes Engineering Works, Cor. Morgan and Fulton Sts., Chicago, Ill.
 Watson-Stillman Co., 46 Dey St., New York.

Presses, Hydraulic Oil—

Charles F. Elmes Engineering Works, Morgan and Fulton Sts., Chicago, Ill.
 Farrel Foundry & Machine Co., Ansonia, Ct.
 Watson-Stillman Co., 46 Dey St., N. Y.

Presses, Hydraulic Portable—

Chambersburg Engineering Co., Chambersburg, Pa.
 Charles F. Elmes Engineering Works, Morgan and Fulton Sts., Chicago, Ill.
 Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.
 Watson-Stillman Co., 46 Dey St., N. Y.
Presses, Hydraulic Wheel—
 Chambersburg Engineering Co., Chambersburg, Pa.

Richard Dudgeon, 24 Columbia St., N. Y.
 Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.
 Wm. Sellers & Co., Inc., Philadelphia.
 Watson-Stillman Co., 46 Dey St., N. Y.
 Wickes Bros., Saginaw, Mich.
 Walter A. Zelnicker Supply Co., St. Louis, Mo.

Presses, Hydro-Pneumatic—

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
Presses, Lead and Tallow—
 Enterprise Mfg. Co., Philadelphia, Pa.
 Landers, Frary & Clark, New Britain, Ct.
 Silver Mfg. Co., Salem, O.

Presses, Lead—

Charles F. Elmes Engineering Works, Morgan and Fulton Sts., Chicago, Ill.
 Watson-Stillman Co., 46 Dey St., N. Y.

Presses, Lead Seal—

Chas. Morrill, 273 Broadway, New York.
 Utica Drop Forge & Tool Co., Utica, N. Y.

Presses, Leather Embossing—

George A. Ohl & Co., Newark, N. J.
Presses, Letter—
 Chicago Scale Co., 232-236 Jackson Boulevard, Chicago, Ill.
 Fairbanks Co., 416 Broome St., New York.

Presses, Nut, Hot and Cold—

National Machinery Co., Tiffin, O.

Presses, Paper, Carton Cover—

Adriance Machine Works, Brooklyn, N. Y.
 Chas. Leffler & Co., Brooklyn, N. Y.

Presses, Punching and Trimming—

Avery Stamping Co., Cleveland, O.
 Baird Machine Co., Oakville, Ct.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Billings & Spencer Co., Hartford, Ct.
 Blake & Johnson, Waterbury, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 James Clark, Jr., & Co., Louisville, Ky.
 Fox Machine Co., Grand Rapids, Mich.
 W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
 Hilles & Jones Co., Wilmington, Del.
 Chas. Leffler & Co., Brooklyn, N. Y.
 Long & Allstatter Co., Hamilton, O.
 E. J. Manville Machine Co., Waterbury, Ct.

Presses, Punching and Trimming—

Merrill Bros., Brooklyn, N. Y.
 Miner & Peck Mfg. Co., New Haven, Ct.
 National Machinery Co., Tiffin, O.
 New Doty Mfg. Co., Janesville, Wis.

Presses, Punching and Trimming—

Niles-Bement-Pond Co., 111 Broadway, New York.
 Pratt & Whitney Co., Hartford, Ct.
 J. M. Robinson Mfg. Co., Cincinnati, O.

Presses, Punching and Trimming—

Fred J. Swaine Co., St. Louis, Mo.
 V. & O. Press Co., Brooklyn, N. Y.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Presses, Rail Straightening—

Watson-Stillman Co., 46 Dey St., New York.
 Wiley & Russell Mfg. Co., Greenfield, Mass.
 Wm. Tod Co., Youngstown, O.

- Presses, Roofing and Tile-**
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Presses, Rubber Vulcanizing-**
Aiton Machine Co., 126 Liberty St., New York.
Birmingham Iron Foundry, Derby, Ct.
Chambersburg Engineering Co., Chambersburg, Pa.
Chas. F. Elmes Engineering Works, Morgan and Fulton Sts., Chicago, Ill.
Farrel Foundry & Mach. Co., Ansonia, Ct.
- Presses, Screw-**
W. F. & John Barnes Co., Rockford, Ill.
Birmingham Iron Foundry, Derby, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.
Farrel Foundry & Mach. Co., Ansonia, Ct.
Gould & Eberhardt, Newark, N. J.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Chas. Lefler & Co., Brooklyn, N. Y.
John Loyd Co., 558 Water St., New York.
Niagara Machine & Tool Works, Buffalo, N. Y.
Wm. Sellers & Co., Inc., 1600 Hamilton St., Philadelphia, Pa.
Fred J. Swaine Co., St. Louis, Mo.
V. & O. Press Co., Brooklyn, N. Y.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
- Presses, Seal-**
Chas. Morrill, 277 Broadway, New York.
Geo. M. Ness, Jr., 61 Fulton St., N. Y.
Schwerdtle Stamp Co., Bridgeport, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.
- Presses, Sheet Metal Working-**
Adriance Machine Works, Brooklyn, N. Y.
Aiton Machine Co., 126 Liberty St., New York.
Alliance Machine Co., Alliance, O.
Automatic Machine Co., Bridgeport, Ct.
Baird Machine Co., Oakville, Ct.
Beaudry & Co., Boston, Mass.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Cleveland Stamping & Tool Co., Cleveland, O.
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.
Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.
Fox Machine Co., Grand Rapids, Mich.
Garvin Machine Co., Spring and Varick Sts., New York.
Gould & Eberhardt, Newark, N. J.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Hilles & Jones Co., Wilmington, Del.
Chas. Lefler & Co., Brooklyn, N. Y.
Long & Allstatter Co., Hamilton, O.
John Loyd Co., 558 Water St., New York.
Mackintosh, Hemphill & Co., Pittsburgh, Pa.
E. J. Manville Machine Co., Waterbury, Ct.
Miner & Peck Mfg. Co., New Haven, Ct.
National Machinery Co., Tiffin, O.
Niagara Machine & Tool Works, Buffalo, N. Y.
Niles-Bement-Pond Co., 111 Broadway, New York.
George A. Ohl & Co., Newark, N. J.
Pratt & Whitney Co., Hartford, Ct.
- Richard Mfg. Co., Bloomsburg, Pa.
J. M. Robinson Mfg. Co., Cincinnati, O.
F. B. Shuster Co., New Haven, Ct.
Fred J. Swaine Co., St. Louis, Mo.
V. & O. Press Co., Brooklyn, N. Y.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
Watson-Stillman Co., 46 Dey St., New York.
- MERCHANTS.**
George E. Affleck, 107 Liberty St., N. Y.
Baird Machinery Co., Pittsburgh, Pa.
J. H. Dawson Machinery Co., 39 S. Canal St., Chicago, Ill.
Fairbanks Co., 416 Broome St., New York.
Frevrt Machinery Co., 18 Dey St., New York.
Hill, Clarke & Co., Boston, Mass.
W. C. Johnson & Sons Machinery Co., St. Louis, Mo.
J. J. McCabe, 14 Dey St., New York.
Marshall & Huschart Machinery Co., 62-64 S. Canal St., Chicago, Ill.
Motch & Merryweather Machinery Co., Cleveland, O.
Prentiss Tool & Supply Co., 115 Liberty St., New York.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Stiles-Morse Co., Western Union Bldg., Chicago, Ill.
H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
Thornton Machinery Co., Providence, R. I.
Jacob Ullman, Buffalo, N. Y.
Vandyck, Churchill Co., 8 Dey St., N. Y.
- Presses, Steam Sewer Pipe-**
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Presses, Steel Plate Engraving, and Printing-**
Gould & Eberhardt, Newark, N. J.
- Presses, Tile-**
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.
- Presses, Tincture-**
Enterprise Mfg. Co., Philadelphia, Pa.
- Presses, Tire Welding-**
Williams, White & Co., Moline, Ill.
- Presses, Tobacco-**
Cutaway, Harrow Co., Higanum, Ct.
L. S. Spencer's Sons, Guilford, Ct.
- Presses, Vegetable-**
Fanner Mfg. Co., Cleveland, O.
- Presses, Veneer-**
Fox Machine Co., Grand Rapids, Mich.
- Presses, Wiring-**
E. W. Bliss Co., Brooklyn, N. Y.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Fred J. Swaine Co., St. Louis, Mo.
- Prick Punches-**
(See Punches, Drive.)
- Primer, Making Machines-**
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
- Primers-**
Union Metallic Cartridge Co., Bridgeport, Ct.
Waterbury Brass Co., Waterbury, Ct.
- Printers' Rule Brass-**
(See Brass Rule, Printers.)
- Printing Apparatus-**
Keuffel & Esser Co., 121 Fulton St., N. Y.
- Printing Machines-**
Howard Iron Works, Buffalo, N. Y.

Producers, Gas—
American Furnace & Machine Co., Pitts-
burgh, Pa.

Duff Patents Co., Pittsburgh, Pa.
Forster-Miller Engineering Co., Pittsburgh.
J. A. Herriek Mutual Life Bldg., Phil-
adelphia, Pa.
Alex. Laughlin & Co., Pittsburgh, Pa.
G. W. McClure, Son & Co., Pittsburgh.
Morgan Construction Co., Worcester, Mass.
Riter-Conley Mfg. Co., Pittsburgh, Pa.
S. R. Smythe Co., Pittsburgh, Pa.
Wm. Swindell & Bro., Pittsburgh, Pa.
J. Thompson & Sons Mfg. Co., Beloit,
Wis.

Wellman-Seaver-Morgan Co., Cleveland, O.
R. D. Wood & Co., 400 Chestnut St.,
Philadelphia, Pa.

Profiling Machines—
Garvin Machine Co., Spring & Varick Sts.,
New York.

Hartford Machine Screw Co., Hartford, Ct.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Pratt & Whitney Co., Hartford, Ct.
Programme Clocks—
(See Clocks, Programme.)

Projectiles—
National Tube Co., Pittsburgh, Pa.

Prop Block Washers—
(See Washers, Prop Block.)

Protectors, Check—
New York Stencil Works, 100 Nassau St.,
New York.

Protectors, Package—
Cory Mfg. Co., 19-21 Roosevelt St., N. Y.

Protectors, Set Screw—
H. O. Canfield Co., Bridgeport, Ct.

Protectors, Strap—
Covert Mfg. Co., Troy, N. Y.

Protractors—
Athol Machine Co., Athol, Mass.
Brown & Sharpe Mfg. Co., Providence,
R. I.

Kenell & Esser Co., 127 Fulton St., N. Y.
Massachusetts Tool Co., Greenfield, Mass.
L. S. Starrett Co., Athol, Mass.

Protractors and Triangles—
Kenell & Esser Co., 127 Fulton St., N. Y.
Tower & Lyon Co., 95 Chambers St.,
New York.

Provision Safes—
(See Safes, Provision.)

Pruners—
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Pruning Saws, Shears—
(See Saws, Shears.)

Publishers, Book—
David Williams Co., 14-16 Park Place,
New York.

Publishers, Catalogue—
A. Mumford, Hartford, Ct.

Push Mills—
Thomas Carlin's Sons, Allegheny, Pa.
J. W. Paxson Co., 1021 N. Delaware Ave.,
Philadelphia, Pa.

Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Pull Plates—
(See Plates, Pull, Push and Kick.)

Pullers, Cork—
Arcade Mfg. Co., Freeport, Ill.

Enterprise Mfg. Co., Philadelphia, Pa.

Erie Specialty Co., Erie, Pa.
John H. Graham & Co., 115 Chambers St.,
New York.

Smith & Hemenway Co., 108-110 Duane
St., New York.

Pullers, Nail—
Belden Machine Co., New Haven, Ct.
Bridgeport Hardware Mfg. Co., Bridge-
port, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.
Kilborn & Bishop Co., New Haven, Ct.
Landers, Frary & Clark, New Britain, Ct.
Millers Falls Co., 28 Warren St., N. Y.
Charles Morrill, 27 Broadway, New York.
Scranton & Co., New Haven, Ct.
Smith & Hemenway Co., 108-110 Duane
St., New York.

Tower & Lyon Co., 95 Chambers St.,
New York.

Pullers, Railroad Spike—
Charles Morrill, 27 Broadway, N. Y.

Pullers, Staple—
Bridgeport Hardware Mfg. Co., Bridge-
port, Ct.

Kilborn & Bishop Co., New Haven, Ct.
Utica Drop Forge & Tool Co., Utica,
N. Y.

Pullers, Tack—
Ashtabula Mfg. Co., Ashtabula, O.
Bridgeport Hardware Mfg. Co., Bridge-
port, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.
Handy Things Co., Ludington, Mich.

Kilborn & Bishop Co., New Haven, Ct.
Landers, Frary & Clark, New Britain, Ct.
L. D. Parkhurst, Danielson, Ct.

Pritchard-Strong Co., Rochester, N. Y.
Scranton & Co., New Haven, Ct.

Smith & Hemenway Co., 108-110 Duane
St., New York.

Utica Drop Forge & Tool Co., Utica,
N. Y.
A. C. Williams, Ravenna, O.

Wrightsville Hardware Co., Wrightsville,
Pa.

Pulley Blocks—
(See Blocks, Pulley.)

**Pulley Bushings, Turning
Lathes, &c.—**
(See Bushings, Lathes, &c.)

Pulley Hooks, Floor—
(See Hooks, Floor Pulley.)

Pulley Machinery, Wood—
Defiance Machine Works, Defiance, O.

Pulleys, Ceiling—
Pleuger & Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Pulleys, Clothes Line—
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Walker Foundry Co., Erie, Pa.

Pulleys, Dumb Wafer—
Bancroft & Co., Fifth & Chestnut Sts.,
Philadelphia, Pa.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers
St., New York.

J. G. Sneider, Reading, Pa.

Pulleys, Electric Light—
Reading Hardware Co., Reading, Pa.

Pulleys, Friction Clutch—
Bancroft & Co., Fifth & Chestnut Sts.,
Philadelphia, Pa.

E. W. Bliss Co., Brooklyn, N. Y.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Brown Hoisting Machinery Co., Cleveland, O.

Browning Engineering Co., Cleveland, O.
H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

W. E. Caldwell Co., Louisville, Ky.

Case Mfg. Co., Columbus, O.

Charter Gas Engine Co., Sterling, Ill.

Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.

C. H. A. Dissinger & Bro., Wrightsville, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Eastern Machinery Co., New Haven, Ct.

Falla Rivet & Machine Co., Cuyahoga Falls, O.

Garvin Machine Co., Spring & Varick Sts., New York.

Hess-Snyder Co., Massillon, O.

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

New Haven Mfg. Co., New Haven, Ct.

Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.

Poole Engineering & Machine Co., Baltimore, Md.

Pratt & Whitney Co., Hartford, Ct.

T. B. Wood's Sons Co., Chambersburg, Pa.

Pulleys, Hay Fork and Sling—

Boston & Lockport Block Co., Boston.

Cronk & Co. Mfg. Co., Elmira, N. Y.

Lawrence Bros., Sterling, Ill.

Louden Machinery Co., Fairfield, Ia.

M. E. Myers & Bro., Ashland, O.

Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Plunger & Henger Mfg. Co., St. Louis, Mo.

J. E. Porter Co., Ottawa, Ill.

Reading Hardware Co., Reading, Pa.

Susquehanna Casting Co., Wrightsville, Pa.

Whitman & Barnes Mfg. Co., Chicago.

Wrightsville Hardware Co., Wrightsville, Pa.

Pulleys, Hot House—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Pulleys, Pressed Steel Shaft—

American Pulley Co., 29th and Bristol Sts., Philadelphia, Pa.

Caldwell Mfg. Co., Rochester, N. Y.

Fox Machine Co., Grand Rapids, Mich.

Grand Rapids Hardware Co., Grand Rapids, Mich.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Plunger & Henger Mfg. Co., St. Louis, Mo.

Pullman Mfg. Co., Rochester, N. Y.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Smith & Egge Mfg. Co., Bridgeport, Ct.

Susquehanna Casting Co., Wrightsville, Pa.

W. & J. Tiebout, 118 Chambers St., N. Y.

Wrightsville Hardware Co., Wrightsville, Pa.

Pulleys, Screw—

Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Wrightsville Hardware Co., Wrightsville, Pa.

Pulleys, Self Adjustable Blade—

I. E. Palmer, Middletown, Ct.

Pulleys, Shaft—

American Pulley Co., 29th and Bristol Sts., Philadelphia, Pa.

American Tool & Machine Co., Boston.

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Boston Gear Works, Boston, Mass.

H. W. Caldwell & Sons Co., Western Ave. and 17th St., Chicago, Ill.

W. E. Caldwell Co., Louisville, Ky.

Case Mfg. Co., Columbus, O.

Charter Gas Engine Co., Sterling, Ill.

Columbia Bridge Co., Pittsburgh, Pa.

Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.

C. H. A. Dissinger & Bro., Wrightsville, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Eastern Machinery Co., New Haven, Ct.

Fairbanks Co., 116 Broome St., New York.

Forster Pulley Works, Cuba, N. Y.

I. & E. Greenwald Co., Cincinnati, O.

Hess-Snyder Co., Massillon, O.

Howard Iron Works, Buffalo, N. Y.

Humphrey Machine Co., Keene, N. H.

Jeffrey Mfg. Co., Columbus, O.

Jones & Laughlin Steel Co., Pittsburgh.

Ohio Pulley Co., Marion, O.

F. R. Patch Mfg. Co., Rutland, Vt.

Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.

Philips Pressed Steel Pulley Works, 4th St. and Glenwood Ave., Philadelphia.

Poole Engineering & Machine Co., Baltimore, Md.

Royersford Foundry & Machine Co., Royersford, Pa.

Saginaw Mfg. Co., Saginaw, Mich.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

B. F. Sturtevant Co., Boston, Mass.

Walsh's Sons & Co., Newark, N. J.

Warsaw Elevator Co., Warsaw, N. Y.

Wickes Bros., Saginaw, Mich.

T. B. Wood's Sons Co., Chambersburg, Pa.

Pulleys, Side—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

W. & J. Tiebout, 118 Chambers St., N. Y.

Wrightsville Hardware Co., Wrightsville, Pa.

Pulleys, Split—

American Pulley Co., 29th and Bristol Sts., Philadelphia, Pa.

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Browning Engineering Co., Cleveland, O.

Buhl Malleable Co., Detroit, Mich.

Case Mfg. Co., Columbus, O.
Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.
Falls Rivet & Machine Co., Cuyahoga Falls, O.
Forster Pulley Works, Cuba, N. Y.
Hess-Snyder Co., Massillon, O.
Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.
T. B. Wood's Sons Co., Chambersburg, Pa.

Pulleys, Steel Face—
Case Mfg. Co., Columbus, O.
Falls Rivet & Machine Co., Cuyahoga Falls, O.

Pulleys, Tackle or Awning—
Boston & Lockport Block Co., Boston.
Broderick & Bascom Rope Co., St. Louis.
A. Leschen & Sons Rope Co., St. Louis.
Ney Mfg. Co., Canton, O.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Wrightsville Hardware Co., Wrightsville, Pa.

Pulleys, Upright—
Peck, Stow & Wilcox Co., 27 Murray St.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
W. & J. Tiebout, 118 Chambers St., N. Y.

Pulleys, Wagon Brake—
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Pulleys, Wire Stretching—
Otis A. Smith, Rockfall, Ct.

Pulleys, Wood Rim—
Falls Rivet & Machine Co., Cuyahoga Falls, O.

Forster Pulley Works, Cuba, N. Y.
Lane Mfg. Co., Montpelier, Vt.

Pulleys, Wood Split—
Case Mfg. Co., Columbus, O.
Dodge Mfg. Co., Mishawaka, Ind.
Fairbanks Co., 416 Broome St., New York.
Falls Rivet & Machine Co., Cuyahoga Falls, O.

Forster Pulley Works, Cuba, N. Y.
Jeffrey Mfg. Co., Columbus, O.
Ohio Pulley Co., Marion, O.
Saginaw Mfg. Co., Saginaw, Mich.

Pulls, Bell—
W. R. Ostrander & Co., 22 Dey St., N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

W. & J. Tiebout, 118 Chambers St., N. Y.
Yale & Towne Mfg. Co., 9-15 Murray St.

Pulls, Closet—
H. A. Matthews Mfg. Co., Seymour, Ct.

Pulls, Door—
Arcade Mfg. Co., Freeport, Ill.
M. S. Brooks & Sons, Chester, Ct.
Chicago Spring Butt Co., Chicago, Ill.
Columbian Hardware Co., Cleveland, O.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
F. E. Kohler & Co., Canton, O.
National Mfg. Co., Sterling, Ill.
Ney Mfg. Co., Canton, O.

Parker Wire Goods Co., Worcester, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Reading Hardware Co., Reading, Pa.

Rock River Mfg. Co., Dixon, Ill.
Root Bros. Co., Plymouth, O.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Shelby Spring Hinge Co., Shelby, O.
W. & J. Tiebout, 118 Chambers St., N. Y.
Wire Goods Co., Worcester, Mass.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Pulls, Drawer—
American Ring Co., Waterbury, Ct.
Arcade Mfg. Co., Freeport, Ill.
Jos. Bardsley, 147-151 Baxter St., N. Y.
W. J. Clark Co., Salem, O.
Columbia Grey Iron Co., Columbia, Pa.
Eagle Lock Co., Terryville, Ct.
Griffin Mfg. Co., Erie, Pa.
Lawrence Bros., Sterling, Ill.
McKinney Mfg. Co., Allegheny, Pa.
National Mfg. Co., Sterling, Ill.
Parker Wire Goods Co., Worcester, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Shelby Spring Hinge Co., Shelby, O.
Stanley Works, New Britain, Ct.
Taylor & Boggis Foundry Co., Cleveland.
A. C. Williams, Ravenna, O.
Wire Goods Co., Worcester, Mass.
Wrightsville Hardware Co., Wrightsville, Pa.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Pulls, Screen or Box—
Parker Wire Goods Co., Worcester, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Pulls, Shade—
M. S. Brooks & Son, Chester, Ct.

Pulls, Window—
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Yale & Towne Mfg. Co., 9-15 Murray St.
Pulverizers, Ore and Clay—
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Pump Chain, Cylinders.

Rods—
(See Chain, Cylinders, Rods.)

Pump Fitters Supplies—
Humphries Mfg. Co., Mansfield, O.

Walworth Mfg. Co., Boston, Mass.

Pump Fixtures, Chain—
Cleveland Galvanizing Works, Cleveland.

W. & B. Douglas, Middletown, Ct.
Pfeuger & Henger Mfg. Co., St. Louis, Mo.

Union Mfg. Co., New Britain, Ct.

Pump Leathers—
(See Leathers, Pump.)

Pump Pressure Regulators—
(See Regulators, Pump Pressure.)

Pump Rod Couplings—
(See Couplings, Pump Rod.)

Pump Supplies, Beer—
H. O. Canfield Co., Bridgeport, Ct.

Pumping Oil Wells, Machinery for—
A. D. Cook, Lawrenceburg, Ind.

Merrill Mfg. Co., Toledo, O.

Pumps, Air Lift—
American Steam Pump Co., Battle Creek, Mich.
Ingersoll-Rand Co., 11 Broadway, N. Y.

Pumps, Ale or Beer—

Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.
Union Mfg. Co., New Britain, Ct.

Pumps, Artesian Well, and Cylinders—

American Steam Pump Co., Battle Creek, Mich.
Barnes Mfg. Co., Mansfield, O.
E. W. Bliss Co., Brooklyn, N. Y.
A. D. Cook, Lawrenceburg, Ind.
Deming Co., Salem, O.
W. & B. Douglas, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.
Humphries Mfg. Co., Mansfield, O.
Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.
John H. McGowan Co., Cincinnati, O.
F. E. Myers & Bro., Ashland, O.

Pumps, Bicycle and Automobile—

American Steam Pump Co., Battle Creek, Mich.
Bridgeport Brass Co., 253 B'way, N. Y.
Goulds Mfg. Co., Seneca Falls, N. Y.
Imperial Brass Mfg. Co., 241 S. Jefferson St., Chicago, Ill.
Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.

Pumps, Boiler Feed—

Allentown Rolling Mills, Allentown, Pa.
American Steam Pump Co., Battle Creek, Mich.
Barnes Mfg. Co., Mansfield, O.
Buffalo Forge Co., Buffalo, N. Y.
Davis-Hansen Co., Oshkosh, Wis.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., Salem, O.
W. & B. Douglas, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.
Heisler Mfg. Co., St. Marys, O.
Humphries Mfg. Co., Mansfield, O.
Benj. F. Kelley & Son, 91 Liberty St., N. Y.
Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.
John H. McGowan Co., Cincinnati, O.
Mason Regulator Co., Boston, Mass.
F. E. Myers & Bro., Ashland, O.
Frank L. Patterson & Co., 26 Cortlandt St., New York.
Fred M. Prescott Steam Pump Co., Milwaukee, Wis.
Rock River Machine Co., Janesville, Wis.
Warren Steam Pump Co., Warren, Mass.

Pumps, Boiler Test—

Barnes Mfg. Co., Mansfield, O.
Bridgeport Brass Co., 253 B'way, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Crosby Steam Gage & Valve Co., Boston.
Davis-Hansen Co., Oshkosh, Wis.
Goulds Mfg. Co., Seneca Falls, N. Y.
A. L. Henderson's Sons, Wilmington, Del.
Scovill Mfg. Co., Waterbury, Ct.

Pumps, Brass—

Barnes Mfg. Co., Mansfield, O.
Bridgeport Brass Co., 253 B'way, N. Y.
Goulds Mfg. Co., Seneca Falls, N. Y.
Humphries Mfg. Co., Mansfield, O.
Scovill Mfg. Co., Waterbury, Ct.
Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.

Pumps, Brewers—

Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.
Fred M. Prescott Steam Pump Co., Milwaukee, Wis.

Pumps, Carriage—

Bridgeport Brass Co., 253 B'way, N. Y.

Pumps, Centrifugal—

Barnes Mfg. Co., Mansfield, O.
Buffalo Forge Co., Buffalo, N. Y.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., Salem, O.
W. & B. Douglas, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.
Humphrey Machine Co., Keene, N. H.
Humphries Mfg. Co., Mansfield, O.
Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.

August Metz, 128-138 Mott St., New York.
Fred M. Prescott Steam Pump Co., Milwaukee, Wis.

Pittsburgh Industrial Iron Works, Pittsburgh, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.

William Tod Co., Youngstown, O.
Union Mfg. Co., New Britain, Ct.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Pumps, Centrifugal, Liners and Flywheels for—

Taylor Iron & Steel Co., High Bridge, N. J.

Pumps, Chain—

Cleveland Galvanizing Works, Cleveland.

Pumps, Circulating—

Alberger Condenser Co., 95 Liberty St., New York.
American Steam Pump Co., Battle Creek, Mich.

De Laval Steam Turbine Co., Trenton, N. J.
Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.

Fred M. Prescott Steam Pump Co., Milwaukee, Wis.

Pumps, Cistern, Pitcher Spout, &c.—

Barnes Mfg. Co., Mansfield, O.
Buffalo Forge Co., Buffalo, N. Y.
Davis-Hansen Co., Oshkosh, Wis.
Deming Co., Salem, O.
W. & B. Douglas, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.
Hess, Snyder & Co., Massillon, O.
Humphries Mfg. Co., Mansfield, O.
Mast, Foss & Co., Springfield, O.
F. E. Myers & Bro., Ashland, O.
J. E. Porter Co., Ottawa, Ill.
Union Mfg. Co., New Britain, Ct.

Pumps, Compression and Vacuum—

American Steam Pump Co., Battle Creek, Mich.

Barnes Mfg. Co., Mansfield, O.
E. W. Bliss Co., Brooklyn, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Crosby Steam Gage & Valve Co., Boston.
Deming Co., Salem, O.
Goulds Mfg. Co., Seneca Falls, N. Y.
Humphries Mfg. Co., Mansfield, O.
Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.

John H. McGowan Co., Cincinnati, O.

Pumps, Contractors—

W. & B. Douglas, Middletown, Ct.

Pumps, Copper—

Union Mfg. Co., New Britain, Ct.

Pumps, Deep Well—

American Steam Pump Co., Battle Creek, Mich.

- Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.
 Mast, Foos & Co., Springfield, O.
 August Metz, 128-128 Mott St., New York.
- Pumps, Discharge—**
 Barnes Mfg. Co., Mansfield, O.
 Boston & Lockport Block Co., Boston.
 W. & B. Douglas, Middletown, Ct.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Humphries Mfg. Co., Mansfield, O.
 Union Hardware Co., Torrington, Ct.
- Pumps, Electric—**
 Allentown Rolling Mills, Allentown, Pa.
 Buffalo Forge Co., Buffalo, N. Y.
 De Laval Steam Turbine Co., Trenton, N. J.
 Deming Co., Salem, O.
 W. & B. Douglas, Middletown, Ct.
 General Electric Co., Schenectady, N. Y.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Heisler Mfg. Co., St. Marys, O.
 Jeffrey Mfg. Co., Columbus, O.
 Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.
 John H. McGowan Co., Cincinnati, O.
 August Metz, 128-128 Mott St., New York.
 Northern Electrical Mfg. Co., Madison, Wis.
 Fred M. Prescott Steam Pump Co., Milwaukee, Wis.
 Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
- Pumps, Elevator—**
 Allentown Rolling Mills, Allentown, Pa.
 American Steam Pump Co., Battle Creek, Mich.
 E. W. Bliss Co., Brooklyn, N. Y.
 Buffalo Forge Co., Buffalo, N. Y.
 Builders Iron Foundry, Providence, R. I.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.
 John H. McGowan Co., Cincinnati, O.
 Fred M. Prescott Steam Pump Co., Milwaukee, Wis.
- Pumps, Elevator Bucket and Purifying—**
 Buhl Malleable Co., Detroit, Mich.
 Cleveland Galvanizing Works, Cleveland.
 F. E. Myers & Bro., Ashland, O.
- Pumps, Engine, Gas and Oil—**
 A. Metz, 128 Mott St., New York.
 Strang Engine Co., 149 Dearborn St., Chicago, Ill.
- J. Thompson & Sons Mfg. Co., Beloit, Wis.
- Pumps, Fire—**
 American Steam Pump Co., Battle Creek, Mich.
 E. W. Bliss Co., Brooklyn, N. Y.
 Buffalo Forge Co., Buffalo, N. Y.
 De Laval Steam Turbine Co., Trenton, N. J.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Heisler Mfg. Co., St. Marys, O.
 Humphrey Machine Co., Keene, N. H.
 Humphries Mfg. Co., Mansfield, O.
 Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.
 F. E. Myers & Bro., Ashland, O.
 Fred M. Prescott Steam Pump Co., Milwaukee, Wis.
- Pumps, Force—**
 Barnes Mfg. Co., Mansfield, O.
 E. W. Bliss Co., Brooklyn, N. Y.
 Buffalo Forge Co., Buffalo, N. Y.
 Davis-Hansen Co., Oshkosh, Wis.
 Deming Co., Salem, O.
- W. & B. Douglas, Middletown, Ct.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hess-Snyder Co., Massillon, O.
 Humphrey Machine Co., Keene, N. H.
 Humphries Mfg. Co., Mansfield, O.
 McNab & Harlin Mfg. Co., 56 John St., New York.
 Mast, Foos & Co., Springfield, O.
 F. E. Myers & Bro., Ashland, O.
 J. E. Porter Co., Ottawa, Ill.
 Strang Engine Co., 149 Dearborn St., Chicago, Ill.
 Union Mfg. Co., New Britain, Ct.
- Pumps, Gas Engine Starting—**
 Goulds Mfg. Co., Seneca Falls, N. Y.
- Pumps, Gauge Test—**
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
- Walworth Mfg. Co., Boston, Mass.
- Pumps, Grouting, Sewerage, Quarry—**
 Barnes Mfg. Co., Mansfield, O.
 E. W. Bliss Co., Brooklyn, N. Y.
 Boston & Lockport Block Co., Boston.
 Buffalo Forge Co., Buffalo, N. Y.
 De Laval Steam Turbine Co., Trenton, N. J.
 Deming Co., Salem, O.
 W. & B. Douglas, Middletown, Ct.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Humphries Mfg. Co., Mansfield, O.
 Ingersoll-Rand Co., 11 Broadway, N. Y.
 Fred M. Prescott Steam Pump Co., Milwaukee, Wis.
 William Tod Co., Youngstown, O.
- Pumps, Ham Preserving—**
 Deming Co., Salem, O.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Silver Mfg. Co., Salem, O.
- Pumps, Horse-power—**
 Barnes Mfg. Co., Mansfield, O.
 Deming Co., Salem, O.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Humphries Mfg. Co., Mansfield, O.
 F. E. Myers & Bro., Ashland, O.
- Pumps, Hydraulic—**
 American Steam Pump Co., Battle Creek, Mich.
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.
 Warren Steam Pump Co., Warren, Mass.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
 Watson-Stillman Co., 46 Dey St., New York.
- Pumps, Irrigation—**
 Allentown Rolling Mills, Allentown, Pa.
 Barnes Mfg. Co., Mansfield, O.
 E. W. Bliss Co., Brooklyn, N. Y.
 Boston & Lockport Block Co., Boston.
 Buffalo Forge Co., Buffalo, N. Y.
 Builders Iron Foundry, Providence, R. I.
 H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
 Charter Gas Engine Co., Sterling, Ill.
 De Laval Steam Turbine Co., Trenton, N. J.
 Deming Co., Salem, O.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Humphries Mfg. Co., Mansfield, O.
 Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.
 John H. McGowan Co., Cincinnati, O.

F. E. Myers & Bro., Ashland, O.
Power Specialty Co., 111 Broadway, New York.

Fred M. Prescott Steam Pump Co., Milwaukee, Wis.
Strang Engine Co., 140 Dearborn St., Chicago, Ill.
William Tod Co., Youngstown, O.

Pumps, Jacket—
Humphries Mfg. Co., Mansfield, O.

Pumps, Lift—
Barnes Mfg. Co., Mansfield, O.
Berger Mfg. Co., Canton, O.
Davis-Hansen Co., Oshkosh, Wis.
W. & B. Douglas, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.
Hess-Snyder Co., Massillon, O.
Humphries Mfg. Co., Mansfield, O.
Mast, Foos & Co., Springfield, O.
Aug. Metz, 128-138 Mott St., New York.
F. E. Myers & Bro., Ashland, O.
J. E. Porter Co., Ottawa, Ill.
Strang Engine Co., 140 Dearborn St., Chicago, Ill.
Union Mfg. Co., New Britain, Ct.

Pumps, Marine—
Fred M. Prescott Steam Pump Co., Milwaukee, Wis.

Warren Steam Pump Co., Warren, Mass.
Pumps, Mine (Cylinders and Heads)—

Allentown Rolling Mills, Allentown, Pa.
American Steam Pump Co., Battle Creek, Mich.

Barnes Mfg. Co., Mansfield, O.
E. W. Bliss Co., Brooklyn, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Builders Iron Foundry, Providence, R. I.
De Laval Steam Turbine Co., Trenton, N. J.

Deming Co., Salem, O.
Goulds Mfg. Co., Seneca Falls, N. Y.
Humphries Mfg. Co., Mansfield, O.
Ingersoll-Rand Co., 11 Broadway, New York.

F. E. Myers & Bro., Ashland, O.
Fred M. Prescott Steam Pump Co., Milwaukee, Wis.

Pumps, Natural Gas—
American Steam Pump Co., Battle Creek, Mich.

Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.
Norwalk Iron Works Co., So. Norwalk, Ct.

Pumps, Oil—
American Steam Pump Co., Battle Creek, Mich.

Barnes Mfg. Co., Mansfield, O.
Brown & Sharpe Mfg. Co., Providence, R. I.
Buffalo Forge Co., Buffalo, N. Y.
Builders Iron Foundry, Providence, R. I.
Deming Co., Salem, O.

Goulds Mfg. Co., Seneca Falls, N. Y.
Humphries Mfg. Co., Mansfield, O.
Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.
Pratt & Whitney Co., Hartford, Ct.

Pumps, Oil, Machine—
Brown & Sharpe Mfg. Co., Providence, R. I.

Buffalo Forge Co., Buffalo, N. Y.
Builders Iron Foundry, Providence, R. I.
Goulds Mfg. Co., Seneca Falls, N. Y.
Lunkenheimer Co., Cincinnati, O.
Pratt & Whitney Co., Hartford, Ct.

Pumps, Plumbers' and Gas Fitters—

Barnes Mfg. Co., Mansfield, O.
Deming Co., Salem, O.
W. & B. Douglas, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.
Humphries Mfg. Co., Mansfield, O.
H. Mueller Mfg. Co., Decatur, Ill.

Pumps, Power—
American Steam Pump Co., Battle Creek, Mich.

Barnes Mfg. Co., Mansfield, O.
Buffalo Forge Co., Buffalo, N. Y.
Charter Gas Engine Co., Sterling, Ill.
Deming Co., Salem, O.
W. & B. Douglas, Middletown, Ct.
Richard, Dudgeon, 24-26 Columbia St., New York.

Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.

Goulds Mfg. Co., Seneca Falls, N. Y.
Heisler Mfg. Co., St. Marys, O.
Humphries Mfg. Co., Mansfield, O.
John H. McGowan Co., Cincinnati, O.
Mast, Foos & Co., Springfield, O.
F. E. Myers & Bro., Ashland, O.
Frank L. Patterson & Co., 26 Cortlandt St., New York.

Rock River Machine Co., Janesville, Wis.
Strang Engine Co., 140 Dearborn St., Chicago, Ill.

Warren Steam Pump Co., Warren, Mass.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Watson-Stillman Co., 46 Dey St., N. Y.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Pumps, Pressure—
American Steam Pump Co., Battle Creek, Mich.

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Goulds Mfg. Co., Seneca Falls, N. Y.
Heisler Mfg. Co., St. Marys, O.
Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.

Fred M. Prescott Steam Pump Co., Milwaukee, Wis.

Wm. Sellers & Co., Inc., 1600 Hamilton St., Philadelphia, Pa.

William Tod Co., Youngstown, O.
Warren Steam Pump Co., Warren, Mass.

Pumps, Quarry—
(See Pumps, Grouting, Sewerage and Quarry.)

Pumps, Rotary—

Connersville Blower Co., Connersville, Ind.
W. & B. Douglas, Middletown, Ct.

(See also Pumps, Centrifugal.)

Pumps, Self Measuring—
Enterprise Mfg. Co., Philadelphia, Pa.

Pumps, Sewerage—
(See Pumps, Grouting and Sewerage.)

Pumps, Ship and Deck—

Barnes Mfg. Co., Mansfield, O.
Boston & Lockport Block Co., Boston.
Deming Co., Salem, O.

W. & B. Douglas, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.
Humphries Mfg. Co., Mansfield, O.
Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.

F. E. Myers & Bro., Ashland, O.
Fred M. Prescott Steam Pump Co., Milwaukee, Wis.

Union Mfg. Co., New Britain, Ct.

Pumps, Siphon—

Barnes Mfg. Co., Mansfield, O.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Humphries Mfg. Co., Mansfield, O.
 John S. Leug's Son & Co., 33 Murray St., New York.

F. E. Myers & Bro., Ashland, O.

Pumps, Spraying—

Barnes Mfg. Co., Mansfield, O.
 Berger Mfg. Co., Canton, O.
 Deming Co., Salem, O.
 W. & B. Douglas, Middletown, Ct.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hess-Snyder Co., Massillon, O.
 Humphries Mfg. Co., Mansfield, O.
 F. E. Kohler & Co., Canton, O.
 Mast, Foss & Co., Springfield, O.
 F. E. Myers & Bro., Ashland, O.
 J. E. Porter Co., Ottawa, Ill.
 Union Mfg. Co., New Britain, Ct.

Pumps, Steam—

Alberger Condenser Co., 95 Liberty St., New York.

American Steam Pump Co., Battle Creek, Mich.

E. W. Bliss Co., Brooklyn, N. Y.

Buffalo Forge Co., Buffalo, N. Y.

Builders Iron Foundry, Providence, R. I.

A. D. Cook, Lawrenceburg, Ind.

Deming Co., Salem, O.

Goulds Mfg. Co., Seneca Falls, N. Y.

Heisler Mfg. Co., St. Marys, O.

Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.

Mason Regulator Co., Boston, Mass.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Fred M. Prescott Steam Pump Co., Milwaukee, Wis.

Rock River Machine Co., Janesville, W. Va.

Warren Steam Pump Co., Warren, Mass.

Watson-Stillman Co., 46 Day St., N. Y.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

MERCHANTS.

Charles Behlen, 72 Trinity Pl., New York.

Carlin Machinery & Supply Co., Inc., Allegheny, Pa.

Chicago Edison Co., Edison Bldg., Chicago, Ill.

Columbus Equipment Co., Columbus, O.

Thomas P. Conard & Co., 119 S. 4th St., Philadelphia, Pa.

Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.

Huntington Machinery & Supply Co., Wilkes-Barre, Pa.

A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.

Benj. T. Kelley & Son, 91 Liberty St., New York.

Lovegrove & Co., Inc., 143-145 N. 3d St., Philadelphia, Pa.

McDowell & Co., Allegheny, Pa.

John H. McGowan Co., Cincinnati, O.

Geo. A. McLean & Co., Pittsburgh, Pa.

A. E. Rosenthal, Davenport, Ia.

Rossiter, McGovern & Co., 141 Broadway, New York.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.

Frank Toomey, 127-131 N. 3d St., Philadelphia, Pa.

Jacob Ullman, Buffalo, N. Y.

Wickes Bros., Saginaw, Mich.

E. O. Williams, 63 So. Canal St., Chicago, Ill.

C. C. Wormer Machinery Co., Detroit, Mich.

Pumps, Steam Jet—

E. W. Vanduzen Co., Cincinnati, O.

Pumps, Tank—

American Steam Pump Co., Battle Creek, Mich.

Barnes Mfg. Co., Mansfield, O.

E. W. Bliss Co., Brooklyn, N. Y.

Buffalo Forge Co., Buffalo, N. Y.

A. D. Cook, Lawrenceburg, Ind.

Davis-Hansen Co., Oshkosh, Wis.

Deming Co., Salem, O.

Julian D'Este Co., Boston, Mass.

W. & B. Douglas, Middletown, Ct.

Goulds Mfg. Co., Massillon, O.

Hess-Snyder Co., Massillon, O.

Humphries Mfg. Co., Mansfield, O.

John H. McGowan Co., Cincinnati, O.

Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.

Mast, Foss & Co., Springfield, O.

F. E. Myers & Bro., Ashland, O.

J. E. Porter Co., Ottawa, Ill.

Fred M. Prescott Steam Pump Co., Milwaukee, Wis.

Union Mfg. Co., New Britain, Ct.

Pumps, Trench—

Barnes Mfg. Co., Mansfield, O.

Boston & Lockport Block Co., Boston.

Goulds Mfg. Co., Seneca Falls, N. Y.

Humphries Mfg. Co., Mansfield, O.

Pumps, Triplex—

W. & B. Douglas, Middletown, Ct.

Goulds Mfg. Co., Seneca Falls, N. Y.

Pumps, Underwriter—

Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.

Pumps, Vacuum—

Alberger Condenser Co., 95 Liberty St., New York.

American Steam Pump Co., Battle Creek, Mich.

Bury Compressor Co., Erie, Pa.

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Connersville Blower Co., Connersville, Ind.

Goulds Mfg. Co., Seneca Falls, N. Y.

Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.

Fred M. Prescott Steam Pump Co., Milwaukee, Wis.

Robt. Wetherill & Co., Inc., Chester, Pa.

Pumps, Vault and Cesspool—

Barnes Mfg. Co., Mansfield, O.

Boston & Lockport Block Co., Boston.

Goulds Mfg. Co., Seneca Falls, N. Y.

Humphries Mfg. Co., Mansfield, O.

Pumps, Water Works—

American Steam Pump Co., Battle Creek, Mich.

E. W. Bliss Co., Brooklyn, N. Y.

Builders' Iron Foundry, Providence, R. I.

De Laval Stear. Turbine Co., Trenton, N. J.

Deming Co., Salem, O.

Goulds Mfg. Co., Seneca Falls, N. Y.

Heisler Mfg. Co., St. Marys, O.

Laidlaw-Dunn-Gordon Co., 114-118 Liberty St., New York.

John H. McGowan Co., Cincinnati, O.

Fred M. Prescott Steam Pump Co., Milwaukee, Wis.

Southwark Foundry & Machine Co., Washington Ave. & 5th St., Phila.

William Tod Co., Youngstown, O.
Robt. Wetherill & Co., Inc., Chester, Pa.
E. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Pumps, Windmill—
Barnes Mfg. Co., Mansfield, O.
A. D. Cook, Lawrenceburg, Ind.
Reming Co., Salem, O.
W. & B. Douglass, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.
Hess-Snyder Co., Massillon, O.
Humphreys Mfg. Co., Mansfield, O.
Mas. Foss & Co., Springfield, O.
F. E. Myers & Bro., Ashland, O.
J. E. Porter Co., Ottawa, Ill.
Union Mfg. Co., New Britain, Ct.

Pumps, Wing—
(See Pumps, Centrifugal.)

Punches, Butcher Saw
Blade—
Massachusetts Saw Works, Chicopee, Mass.

Punches and Dies, Compound—

Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Punches and Dies, Ship-
yard—

Badger State Machine Co., Janesville, Wis.
Bertsch & Co., Cambridge City, Ind.
E. W. Bliss Co., Brooklyn, N. Y.

Punches and Fasteners,

Paper—
Eyelet Tool Co., Boston, Mass.
E. L. Sibley, Bennington, Vt.

Punches and Shears for

Plate Work—
American Die & Tool Co., Reading, Pa.
Badger State Machine Co., Janesville, Wis.

Beaudry & Co., Boston, Mass.
Bertsch & Co., Cambridge City, Ind.
Bicknell Mfg. & Supply Co., Janesville, Wis.

Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

E. W. Bliss Co., Brooklyn, N. Y.
Lewis Foundry & Machine Co., Pittsburgh, Pa.

Long & Allstatter Co., Hamilton, O.
Mackintosh, Hemphill & Co., Pittsburgh.
New Doty Mfg. Co., Janesville, Wis.

Niles-Bement-Fond Co., 111 Broadway, N. Y.
Roversford Foundry & Machine Co., Roversford, Pa.

Wm. Sellers & Co., Inc., 1600 Hamilton St., Philadelphia, Pa.

C. E. Sutton Co., Toledo, O.
Punches, Automatic Center—
Goodell-Fratt Co., Greenfield, Mass.

L. S. Starrett Co., Athol, Mass.
Punches, Belt—
Bay State Tool Co., Worcester, Mass.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
Eyelet Tool Co., Boston, Mass.

Charles Morrill, 277 Broadway, N. Y.
Sattley Stack Co., Indianapolis, Ind.
Wm. Schollhorn Co., New Haven, Ct.

Otis A. Smith, Rockfall, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.

Vaughan & Bushnell Mfg. Co., Chicago.

Punches, Butcher Saw
Blade—
H. G. Thompson & Son Co., New Haven, Ct.

Punches, Centering—
American Die & Tool Co., Reading, Pa.
Goodell Mfg. Co., Greenfield, Mass.
Massachusetts Tool Co., Greenfield, Mass.

Punches, Check
Geo. M. Ness, Jr., 61 Fulton St., N. Y.

Punches, Conductor, Ticket,
&c.—
American Railway Supply Co., 42 Park Place, New York.

Bemis & Call Hardware & Tool Co., Springfield, Mass.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Wm. Schollhorn Co., New Haven, Ct.
Smith & Edge Mfg. Co., Bridgeport, Ct.

R. Woodman Mfg. & Supply Co., Boston.

Punches, Drive—
Bemis & Call Hardware & Tool Co., Springfield, Mass.

Charles Buck Edge Tool Co., Millbury, Mass.

Buck Bros., Millbury, Mass.

Cronk & Carrier Mfg. Co., Elmira, N. Y.
Ducharmes & Co., Shelburne Falls, Mass.

Eyelet Tool Co., Boston, Mass.
Goodell-Fratt Co., Greenfield, Mass.

Keystone Mfg. Co., Buffalo, N. Y.
M. Lanz & Sons, Pittsburgh, Pa.

Massachusetts Saw Works, Chicopee, Mass.

H. H. Mayhew Co., Shelburne Falls, Mass.

Ney Mfg. Co., Canton, O.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Richmond Forgings Corporation, Richmond, Va.

L. S. Starrett Co., Athol, Mass.
Tranue & Williams Co., Alliance, O.

Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.

Whitman & Barnes Mfg. Co., Chicago.

Punches, Embossing—
E. W. Bliss Co., Brooklyn, N. Y.

Schwerdtle Stamp Co., Bridgeport, Ct.
H. Woodman Mfg. & Supply Co., Boston.

Punches, Hand and Power—
Adriance Machine Works, Brooklyn, N. Y.

Alliance Machine Co., Alliance, O.
American Die & Tool Co., Reading, Pa.

American Lock Nut Co., Oregon, Ill.
Badger State Machine Co., Janesville, Wis.

Beaudry & Co., Boston, Mass.
Bertsch & Co., Cambridge City, Ind.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Biggall & Keeler Mfg. Co., Edwardsville, Ill.

E. W. Bliss Co., Brooklyn, N. Y.
Buffalo Forge Co., Buffalo, N. Y.

Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Richard Dudgeon, 24-26 Columbia St., N. Y.
Charles G. Eckstein, 249 Centre St., N. Y.

Eyelet Tool Co., Boston, Mass.
Fox Machine Co., Grand Rapids, Mich.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

A. L. Henderer's Sons, Wilmington, Del.
Hilles & Jones Co., Wilmington, Del.

R. E. Kiddler, Worcester, Mass.
E. Kingslow Stamping & Tool Works, Cleveland, O.

J. H. Lingle, Bellefonte, Pa.
Long & Allstatter Co., Hamilton, O.

John Loyd Co., 558 Water St., New York.

McDougall & Potter Co., 602 W. 55th St., New York.

C. S. Mersick & Co., New Haven, Ct.
Chas. Morrill, 277 Broadway, New York.

Frank Mossberg & Co., Attleboro, Mass.
New Doty Mfg. Co., Janesville, Wis.

Niagara Machine & Tool Works, Buffalo, N. Y.

Niles-Bement-Pond Co., 111 Broadway, New York.

Norvelt Iron Works, Dubuque, Ia.
George A. Ohl & Co., Newark, N. J.

Henry Pels & Co., 66 Broad St., N. Y.
Pittsburgh Mfg. Co., Pittsburgh, Pa.

Pratt & Whitney Co., Hartford, Ct.
Rock River Machine Co., Janesville, Wis.

Royersford Foundry & Machine Co., Royersford, Pa.

Wm. Sellers & Co., Inc., Philadelphia.
Sigourney Tool Co., Hartford, Ct.

C. E. Sutton Co., Toledo, O.
Vandyck, Churchill Co., 8 Dey St., N. Y.

W. & S. Mfg. Co., Worcester, Mass.
Watson-Stillman Co., 46 Dey St., N. Y.

Wickes Bros., Saginaw, Mich.
Wiley & Russell Mfg. Co., Greenfield, Mass.

Williams, White & Co., Moline, Ill.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

R. Woodman Mfg. & Supply Co., Boston.

MERCHANTS

Geo. E. Affleck, 109 Liberty St., N. Y.
Baird Machinery Co., Pittsburgh, Pa.

Carlin Machinery & Supply Co., Inc., Allegheny, Pa.

J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Barclay M. Everson, Pittsburgh, Pa.
Fairbanks Co., 416 Broome St., New York.

Hill, Clarke & Co., Boston, Mass.
Irving Mfg. & Tool Co., 157 Chambers St., New York.

J. J. McCabe, 14 Dey St., New York.
Manning, Maxwell & Moore, 85 Liberty St., New York.

Marshall & Hueschart Machinery Co., 62 S. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co., Cleveland, O.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted & Wayman Sts., Chicago, Ill.

L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.

Stiles-Morse Co., Western Union Bldg., Chicago, Ill.

Thornton Machinery Co., Providence.

Punches, Hand, Tube and Manhole—

American Die & Tool Co., Reading, Pa.
Badger State Machine Co., Janesville, Wis.

Bertsch & Co., Cambridge City, Ind.
A. L. Henderer's Sons, Wilmington, Del.

Hilles & Jones Co., Wilmington, Del.
Long & Allstatter Co., Hamilton, O.

New Doty Mfg. Co., Janesville, Wis.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Wickes Bros., Saginaw, Mich.

Punches, Horsehoers' Nail—

Vaughan & Bushnell Mfg. Co., Chicago.

Punches, Hydraulic—

Alliance Machine Co., Alliance, O.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

E. W. Bliss Co., Brooklyn, N. Y.
Richard Dudgeon, 24-26 Columbia St., New York.

Fischer Foundry & Machine Co., Pittsburgh, Pa.

A. L. Henderer's Sons, Wilmington, Del.
Mackintosh, Hemphill & Co., Pittsburgh.

Niles-Bement-Pond Co., 111 Broadway, New York.

Power Specialty Co., 111 Broadway, N. Y.
United Engineering & Foundry Co., Pittsburgh, Pa.

Watson-Stillman Co., 46 Dey St., N. Y.
Wickes Bros., Saginaw, Mich.

Williams, White & Co., Moline, Ill.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Punches, Multiple—

Adriance Machine Works, Brooklyn, N. Y.
Badger State Machine Co., Janesville, Wis.

Bertsch & Co., Cambridge City, Ind.
E. W. Bliss Co., Brooklyn, N. Y.

Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Hilles & Jones Co., Wilmington, Del.
Long & Allstatter Co., Hamilton, O.

New Doty Mfg. Co., Janesville, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.

Niles-Bement-Pond Co., 111 Broadway, N. Y.
George A. Ohl & Co., Newark, N. J.

Wm. Sellers & Co., Inc., Philadelphia.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Williams, White & Co., Moline, Ill.

Punches, Paper—

Eyelet Tool Co., Boston, Mass.
Chas. Morrill, 277 Broadway, New York.

E. L. Sibley, Bennington, Vt.
R. Woodman Mfg. & Supply Co., Boston.

Punches, Saw—

Henry Diston & Sons, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.

Punches, Screw—

American Die & Tool Co., Reading, Pa.
Badger State Machine Co., Janesville, Wis.

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Richard Dudgeon, 24-26 Columbia St., N. Y.

A. L. Henderer's Sons, Wilmington, Del.

Punches, Spiral Shear—

Pratt & Whitney Co., Hartford, Ct.

Punches, Spring—

Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.

Eyelet Tool Co., Boston, Mass.
John H. Graham & Co., 113 Chambers St., New York.

Louis Sacks, Newark, N. J.
Smith & Edge Mfg. Co., Bridgeport, Ct.

Punching Machines, I—

Beam—

Badger State Machine Co., Janesville, Wis.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

E. W. Bliss Co., Brooklyn, N. Y.
Richard Dudgeon, 24-26 Columbia St., New York.

- Chas. G. Eckstein, 247 Centre St., N. Y.
 A. L. Henderer's Sons, Wilmington, Del.
 Hilles & Jones Co., Wilmington, Del.
 Long & Allstatter Co., Hamilton, O.
 Mackintosh, Hemphill & Co., Pittsburgh.
 National Machinery Co., Tiffin, O.
 New Doty Mfg. Co., Janceville, Wis.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Henry Pels & Co., 66 Broad St., N. Y.
 Wm. Sellers & Co. (Inc.), Philadelphia.
 C. E. Sutton Co., Toledo, O.
 Watson-Stillman Co., 46 Dev St., N. Y.
 Williams, White & Co., Moline, Ill.
- Punching, Metal—**
 Grant Mfg. & Machine Co., Bridgeport, Ct.
 Helwig Mfg. Co., St. Paul, Minn.
 New England Specialty Co., N. Easton, Mass.
 W. & S. Mfg. Co., Worcester, Mass.
- Punching Presses—**
 (See Presses.)
- Purifiers, Feed Water—**
 Dodge Mfg. Co., Mishawaka, Ind.
 Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.
 Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.
 National Pipe Bending Co., New Haven, Ct.
 F. L. Patterson & Co., 26 Cortland St., New York.
 Wm. B. Scaife & Sons Co., Pittsburgh.
 Walworth Mfg. Co., Boston, Mass.
 Warren Webster & Co., Camden, N. J.
 Whitlock Coil Pipe Co., Hartford, Ct.
 Wickes Bros., Saginaw, Mich.
- Purifiers, Oil—**
 Maurer, Labadie & Co., South Bend, Ind.
- Purifying and Softening Systems, Water—**
 (See Water Softening and Purifying Systems.)
- Purifying Pumps—**
 (See Pumps, Elevator Bucket and Purifying.)
- Purifying Systems, Water—**
 Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.
 Warren Webster & Co., Camden, N. J.
- Push Buttons, Carts, Plates—**
 (See Buttons, Carts, Plates.)
- Pushers, Car—**
 Boston & Lockport Block Co., Boston.
 Buhl Malleable Co., Detroit, Mich.
 Osborn Mfg. Co., Cleveland, O.
 Solid Steel Tool & Forge Co., Tarentum, Pa.
 R. Woodman Mfg. & Supply Co., Boston.
 Walter A. Zelnick Supply Co., St. Louis, Mo.
- Pushes, Electric Bell—**
 W. E. Hartigan, Collinsville, Ct.
 Reading Hardware Co., Reading, Pa.
- Putty, Glaziers'—**
 John Briggs & Co., Boston, Mass.
- Putty, Greenhouse—**
 Lord & Burnham Co., Irvington-on-Hudson, N. Y.
- Putty, Stove—**
 John Briggs & Co., Boston, Mass.
 Cleveland Stone Co., Cleveland, O.
 S. Obermayer Co., Cincinnati, O.
- Pyrographic Outfits—**
 F. A. Reichardt & Co., 391 Broadway, New York.
- Pyrometers—**
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
 Ashton Valve Co., Boston, Mass.
 Edward Brown & Son, 311½ Walnut St., Philadelphia, Pa.
 Eimer & Amend, 205 3d Ave., New York.
 Charles Engelhard, 41 Cortlandt St., N. Y.
 Uehling-Decker Co., Passaic, N. J.
- Pyrometers, Recording—**
 Bristol Co., Waterbury, Ct.
 Edward Brown & Son, 311½ Walnut St., Philadelphia, Pa.
 Uehling-Decker Co., Passaic, N. J.
- Quadrants, Brass Skylight—**
 W. & J. Tiebout, 118 Chambers St., N. Y.
- Quarry Bars—**
 Ingersoll-Rand Co., 11 Broadway, N. Y.
- Quarry Machinery—**
 Browning Engineering Co., Cleveland, O.
 Ingersoll-Rand Co., 11 Broadway, N. Y.
 Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
- Quarry Pumps—**
 (See Pumps, Grouting and Quarry.)
- Quartering Machines—**
 Niles-Bement-Pond Co., 111 Broadway, New York.
- Quartz Ware, Fused—**
 Wm. Sellers & Co. (Inc.), Philadelphia.
 Charles Engelhard, 41 Cortlandt St., N. Y.
- Quilt Frame Clamps—**
 (See Clamps, Carpenters', &c.)
- Quilts—**
 Kramer Bros. Foundry Co., Dayton, O.
 Pleuger & Henger Mfg. Co., St. Louis.
 Reading Hardware Co., Reading, Pa.
 A. C. Williams, Ravenna, O.
- Rabbit and Butt Gauges—**
 (See Gauges, Butt and Rabbit.)
- Rack Cutting Machines, Automatic—**
 Mark Flather Planer Co., Nashua, N. H.
 Gould & Eberhardt, Newark, N. J.
 (See also Cutting Machines, Rack.)
- Racks, Bakery—**
 Parker Wire Goods Co., Worcester, Mass.
 Van Dorn Iron Works Co., Cleveland, O.
 Wire Goods Co., Worcester, Mass.
- Racks, Bars and Rings, Towel—**
 American Ring Co., Waterbury, Ct.
 E. B. Estes & Sons, 45-47 John St., N. Y.
 Gray Iron Foundry Co., Reading, Pa.
 Kilbourne Mfg. Co., Troy, N. Y.
 Landers, Frary & Clark, New Britain, Ct.
 Parker Wire Goods Co., Worcester, Mass.
 Pleuger & Henger Mfg. Co., St. Louis, Mo.
 Pritchard-Strong Co., Rochester, N. Y.
 Raymond Mfg. Co., Corry, Pa.
 Spencer Wire Co., Worcester, Mass.
 Taplin Mfg. Co., New Britain, Ct.
 Udell Works, Indianapolis, Ind.
- Racks, Bicycle—**
 (See Stands and Holders, Bicycle.)
- Racks, Brass—**
 Boston Gear Works, Boston, Mass.
 Wm. Ganschow, 12-14 S. Clinton St., Chicago, Ill.
 Manning, Maxwell & Moore, 85 Liberty St., New York.
 New Process Raw Hide Co., Syracuse, N. Y.
 W. & J. Tiebout, 118 Chambers St., N. Y.

Racks, Broom—

Udell Works, Indianapolis, Ind.

Racks, Card, Book and Paper—

Parker Wire Goods Co., Worcester, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Racks, Cloth—

Handy Things Co., Ludington, Mich.

Hill Dryer Co., Worcester, Mass.

Udell Works, Indianapolis, Ind.

Racks, Cut Metal—

Boston Gear Works, Boston, Mass.

Fawcuss Machine Co., Pittsburgh, Pa.

Wm. Ganschow, 12-14 S. Clinton St., Chicago, Ill.

New Process Raw Hide Co., Syracuse, N. Y.

R. D. Nuttall Co., Pittsburgh, Pa.

Standard Gauge Steel Co., Beaver Falls, Pa.

Racks, Fruit Steaming—

Republic Metalware Co., Buffalo, N. Y.

Racks, Hat and Coat—

Kilbourne Mfg. Co., Troy, N. Y.

Raymond Mfg. Co., Ltd., Corry, Pa.

Udell Works, Indianapolis, Ind.

Racks, Hay—

(See Stable Fixtures.)

Racks, Hose—

Specialty Mfg. Co., St. Anthony Park, Minn.

Racks, Milk Bottle—

(See Carriers, Milk Bottle.)

Racks, Pew, Book—

Ludlow-Saylor Wire Co., St. Louis, Mo.

Union Mfg. Co., New Britain, Ct.

Racks, Rubber Stamp—

E. L. Sibley, Bennington, Vt.

Racks, Steel Good—

American Fork & Hoe Co., Cleveland, O.

(See also Brackets, Shovel, Hoe, Rake, Fork, &c.)

Racks, Towel—

(See Racks, Bars and Rings.)

Racks, Tube and Bar—

Pawling & Harnischfeger, Milwaukee, Wis.

Radiator Screens—

(See Screens, Radiator.)

Radiators, Disc, for Auto-**mobiles—**

Whitlock Coil Pipe Co., Hartford, Ct.

Radiators, Electric—

General Electric Co., Schenectady, N. Y.

Radiators, Gas and Oil—

Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.

Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

Radiators, Steam and Hot**Water—**

Jarecki Mfg. Co., Erie, Pa.

Standard Car & Foundry Co., Pittsburgh.

Rafter Brackets, Grapples—

(See Brackets, Grapples.)

Rail Benders, Bonds, Drills—

(See Benders, Bonds, Drills.)

Rail, Door and Barn Door—

Bridgeport Brass Co., 233 B'way, N. Y.

Chicago Spring Butt Co., Chicago, Ill.

Chisholm & Moore Mfg. Co., Cleveland, O.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Davis Mfg. Co., Milwaukee, Wis.

Griffin Mfg. Co., Erie, Pa.

Lane Bros. Co., Poughkeepsie, N. Y.

Lawrence Bros., Sterling, Ill.

McKinney Mfg. Co., Allegheny, Pa.

National Mfg. Co., Sterling, Ill.

Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Plunger & Henger Mfg. Co., St. Louis, Mo.

Plumbe & Atwood Mfg. Co., Waterbury, Ct.

J. E. Porter Co., Ottawa, Ill.

Reading Hardware Co., Reading, Pa.

Richards Mfg. Co., Aurora, Ill.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Seavill Mfg. Co., Waterbury, Ct.

Stanley Works, New Britain, Ct.

Union Mfg. Co., New Britain, Ct.

Railing and Brackets, Of-**fice, Counter, &c.—**

Chester B. Albree Iron Works Co., Alle-

gheny, Pa.

Buffalo Wire Works Co., Buffalo, N. Y.

Chesapeake Iron Works, Baltimore, Md.

Clinton Wire Cloth Co., Clinton, Mass.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Enterprise Foundry & Fence Co., Indian-

apolis, Ind.

Estey Wire Works Co., 59 Fulton St., New York.

Forest City Steel & Iron Co., Cleve-

land, O.

Gilbert & Bennett Mfg. Co., 27 Broad-

way, New York.

Glen Mfg. Co., Ellwood City, Pa.

Howard & Morse, 45 Fulton St., N. Y.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

W. N. Kratzer & Co., Pittsburgh, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

National Iron & Wire Co., Cleveland, O.

Ohio Structural Iron Co., Sandusky, O.

John P. Smith & Co., New Haven, Ct.

Stewart Iron Works Co., Cincinnati, O.

W. S. Tyler Co., Cleveland, O.

Van Dorn Iron Works Co., Cleveland, O.

Wright Wire Co., Worcester, Mass.

Railings, Area—

(See Iron Work, Builders'.)

Railings, Brass—

(See Railing and Brackets.)

Railings, Bridge—

Belmont Iron Works, Philadelphia, Pa.

Railroad Cars, Forgings,**&c.—**

(See Cars, Forgings, &c.)

Railroad Equipment—

American Valve & Meter Co., Cincin-

nati, O.

Atlas Car & Mfg. Co., Cleveland, O.

Interstate Engineering Co., Bedford, Ct.

Arthur Koppel, 66-68 Broad St., N. Y.

Northern Engineering Works, Detroit, Mich.

Quincy, Manchester, Sargent Co., Old

Colony Bldg., Chicago, Ill.

Wellman-Seaver-Morgan Co., Cleveland, O.

MERCHANTS.

Justice Cox, Jr., & Co., Ltd., Land Title

Bldg., Philadelphia, Pa.

Dallett & Co., Harrison Bldg., Phila-

delphia, Pa.

L. B. Foster Co., Pittsburgh, Pa.

Cal. Hirsch & Sons Iron & Rail Co., St.

Louis, Mo.

I. C. Hirsch Iron, Steel & Rail Co.,

Cincinnati, O.

A. V. Kaiser & Co., 22 S. 3d St., Phila-

delphia, Pa.

W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.
Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.
A. Leschen & Sons Rope Co., St. Louis.
McClelland & Orr, Monadnock Block, Chicago, Ill.
Richardson & Co., Inc., Pittsburgh, Pa.
H. A. Rogers Co., 19 John St., N. Y.
Wonham & Magor, 29 Broadway, N. Y.
Walter A. Zelnicker Supply Co., St. Louis, Mo.

Railroad Equipment, Electric—

General Electric Co., Schenectady, N. Y.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Railroad Shop Wood Working Machinery—

(See Cars, Shop, Wood Working Machinery.)

Railroad Trucks—

(See Trucks, Baggage and Express.)

Railroad Unloaders—

(See Unloaders, Railroad.)

Railroads—

New York Central & Hudson River R. R., Grand Central Station, New York.

Railroads, Cable—

(See Conveying Machinery.)

Rails and Hangers, Suspended—

Ney Mfg. Co., Canton, O.
Trenton Iron Co., Trenton, N. J.

Rails, Dash—

Walter W. Woodruff & Sons Co., Mount Carmel, Pa.

Rails, Light—

Atlas Car & Mfg. Co., Cleveland, O.
Carnegie Steel Co., Pittsburgh, Pa.
Jones & Laughlin Steel Co., Pittsburgh.
Republic Iron & Steel Co., Chicago, Ill.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
Justice Cox, Jr., & Co., Land Title Bldg., Philadelphia, Pa.

Robert M. Cunliffe, 11th St. & Washington Ave., Philadelphia, Pa.

Weston Donaldson, 421 Chestnut St., Philadelphia, Pa.

L. B. Foster Co., Pittsburgh, Pa.

J. H. Hillman & Son, Pittsburgh, Pa.

Cal. Hirsch & Sons Iron & Rail Co., St. Louis, Mo.

I. C. Hirsch Iron, Steel & Rail Co., Cincinnati, O.

L. K. Hirsch Co., 71 Broadway, New York.

Hyde Bros. & Co., Pittsburgh, Pa.

Indianapolis Switch & Frog Co., Springfield, O.

A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.

W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.

Arthur Koppel, 66 Broad St., New York.

Henry Lewis & Co., 26 S. 15th St., Philadelphia, Pa.

Phillips-Laffitte Co., Pennsylvania Bldg., Philadelphia, Pa.

Pittsburgh Pipe & Iron Co., McKees Rocks, Pa.

Pittsburgh Rail Supply Co., Pittsburgh.

Shook & Fletcher, Birmingham, Ala.

Steel Rail Supply Co., 100 Broadway, New York.

Ernst Wiener Co., 63 Broad St., N. Y.

Wonham & Magor, 29 Broadway, N. Y.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

Rails, Old—

(See Material, Old.)

Rails, Relaying—

Block-Pollak Iron Co., Cincinnati, O.

Carlin Machinery & Supply Co., Inc., Allegheny, Pa.

Thos. P. Conard & Co., Harrison Bldg., Philadelphia, Pa.

Continental Iron & Steel Co., 66 Broad St., New York.

Justice Cox, Jr., & Co., Ltd., Land Title Bldg., Philadelphia, Pa.

Dallett & Co., Harrison Bldg., Philadelphia, Pa.

Weston Donaldson, 421 Chestnut St., Philadelphia, Pa.

L. B. Foster Co., Pittsburgh, Pa.

J. H. Hillman & Son, Pittsburgh, Pa.

Cal. Hirsch & Sons Iron & Rail Co., St. Louis, Mo.

I. C. Hirsch Iron, Steel & Rail Co., Cincinnati, O.

L. K. Hirsch Co., 71 Broadway, New York.

Hyde Bros. & Co., Pittsburgh, Pa.

Indianapolis Switch & Frog Co., Springfield, O.

Jos. Joseph & Bros. Co., Cincinnati, O.

A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.

W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.

Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.

Jno. Leonard & Co., 220 Broadway, N. Y.

Henry Lewis & Co., 26 So. 15th St., Philadelphia, Pa.

George J. Newton, Real Estate Trust Bldg., Philadelphia, Pa.

Phillips-Laffitte Co., Pennsylvania Bldg., Philadelphia, Pa.

Pittsburgh Rail Supply Co., Pittsburgh.

Richardson & Co., Inc., Pittsburgh, Pa.

Shook & Fletcher, Birmingham, Ala.

Steel Rail Supply Co., 100 Broadway, New York.

Thompson-Bonney Co., Brooklyn, N. Y.

Walsh's Sons & Co., Newark, N. J.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

Rails, Steel—

Carnegie Steel Co., Pittsburgh, Pa.

Republic Iron & Steel Co., Republic National Bank Bldg., Chicago, Ill.

MERCHANTS.

Atlas Car & Mfg. Co., Cleveland, O.

Barbour-Stockwell Co., Cambridgeport, Mass.

Bourne-Fuller Co., Cleveland, O.

Weston Donaldson, 421 Chestnut St., Philadelphia, Pa.

Arthur Koppel, 66-68 Broad St., N. Y.

Justice Cox, Jr., & Co., Ltd., Land Title Bldg., Philadelphia, Pa.

Robert M. Cunliffe, 11th St. & Washington Ave., Philadelphia, Pa.

Dallett & Co., Harrison Bldg., Philadelphia, Pa.

L. B. Foster Co., Pittsburgh, Pa.

J. H. Hillman & Son, Pittsburgh, Pa.

I. C. Hirsch Iron, Steel & Rail Co., Cincinnati, O.

C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.

Hyde Bros. & Co., Pittsburgh, Pa.

Indianapolis Switch & Frog Co., Springfield, O.

A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.

W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.

Ernest Law & Co., 15th and Market Sts., Philadelphia, Pa.

Henry Lewis & Co., 26 So. 15th St., Philadelphia, Pa.

John B. Newkirk & Co., 15th and Market Sts., Philadelphia, Pa.

George J. Newton, Real Estate Trust Bldg., Philadelphia, Pa.

Phillips-Ladette Co., Pennsylvania Bldg., Philadelphia, Pa.

Pierson & Co., 29 Broadway, New York.

Pittsburgh Pipe & Iron Co., McKees Rocks, Pa.

Pittsburgh Rail Supply Co., Pittsburgh.

Richardson & Co., Inc., Pittsburgh, Pa.

Steel Rail Supply Co., 109 Broadway, New York.

Walsh's Sons & Co., Newark, N. J.

Wheeler, Milfin & Co., Fidelity Bldg., Philadelphia, Pa.

Ernst Wiener Co., 66 Broad St., N. Y.

Walter A. Zeinicker Supply Co., St. Louis, Mo.

Railways for Industrial Purposes—

Atlas Car & Mfg. Co., Cleveland, O.

C. W. Hunt Co., West New Brighton, N. Y.

W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.

Arthur Koppel, 150 Nassau St., N. Y.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Robins Conveying Belt Co., Park Row Bldg., New York.

R. F. Sturtevant Co., Boston, Mass.

Ernst Wiener Co., 68 Broad St., N. Y.

Railways, Marine—

Poo'e Engineering & Machine Co., Baltimore, Md.

Raisin Seeders—

(See Seeders, Raisin.)

Rake Machinery—

(See Fork, Rake and Hoe Machinery.)

Rakes, Asphalt—

American Fork & Hoe Co., Cleveland, O.

Rakes, Ballast and Gravel—

American Fork & Hoe Co., Cleveland, O.

Rakes, Garden—

American Fork & Hoe Co., Cleveland, O.

Continental Tool Co., Frankfort, N. Y.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

John H. Graham & Co., 113 Chambers St., New York.

F. E. Kohler & Co., Canton, O.

Potter Mfg. Co., Geneva, O.

Rakes, Hay, Horse—

Long & Allstatter Co., Hamilton, O.

Rakes, Lawn—

American Fork & Hoe Co., Cleveland, O.

Coldwell Lawn Mower Co., Newburgh, N. Y.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

F. E. Kohler & Co., Canton, O.

Ner Mfg. Co., Canton, O.

Potter Mfg. Co., Geneva, O.

Rakes, Wood, Hand—

American Fork & Hoe Co., Cleveland, O.

Continental Tool Co., Frankfort, N. Y.

Rammers, Foundry—

Brown & Sharpe Mfg. Co., Providence, R. I.

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Ingersoll-Rand Co., 11 Broadway, N. Y.

S. Obermayer Co., Cincinnati, O.

Osborn Mfg. Co., Cleveland, O.

J. W. Paxson Co., Philadelphia, Pa.

Ramrods—

E. B. Estes & Sons, 45-47 John St., N. Y.

Rams, Hydraulic—

Barnes Mfg. Co., Mansfield, O.

Deming Co., Salem, O.

W. & B. Douglas, Middletown, Ct.

Goulds Mfg. Co., Seneca Falls, N. Y.

Humphreys Mfg. Co., Mansfield, O.

F. E. Myers & Bro., Ashland, O.

Power Specialty Co., 111 Broadway, N. Y.

Union Mfg. Co., New Britain, Ct.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Ranges—

(See Stoves and Ranges.)

Ranges, Combination Coal and Gas—

Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

Ranges, Hot Gas—

Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

Ranges, Steel—

Gazier Stove Co., Chelsea, Mich.

Hess-Snyder Co., Massillon, O.

Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

Wm. G. Willard, St. Louis, Mo.

Rasps and Files—

(See Files and Rasps.)

Rasps, Horse Tooth—

Carver File Co., Philadelphia, Pa.

Henry Disston & Sons, Philadelphia, Pa.

Heller Bros. Co., Newark, N. J.

Nicholson File Co., Providence, R. I.

Rat Traps—

(See Traps.)

Ratchet Die Stocks—

(See Die Stocks, Ratchet.)

Ratchet Drills, Pawls—

(See Drills, Pawls.)

Ratchet Screw Drivers—

(See Drivers, Screw, Ratchet.)

Ratchets, Drill, Tap, Wrench, &c.—

Keystone Mfg. Co., Buffalo, N. Y.

Pratt & Whitney Co., Hartford, Ct.

Walworth Mfg. Co., Boston, Mass.

Wells Bros. Co., Greenfield, Mass.

Ratchets, Universal—

Armstrong Bros. Tool Co., 617 Austin Ave., Chicago, Ill.

Ratchets, Wire Fence—

(See Stretchers, Fence and Wire.)

Rattlers, Foundry—

(See Barrels, Tumbling.)

Rawhide Belting, Belt Lacing—

(See Belting, Belt Lacing.)

Rawhide Gears—

(See Gears.)

Razor Hones, Paste, Stropps—

(See Hones, Paste, Stropps.)

Razor Strop Hardware—

M. S. Brooks & Sons, Chester, Ct.

Razors—

Charles Buck Edge Tool Co., Millbury, Mass.

Buck Bros., Millbury, Mass.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Alfred Field & Co., 93 Chambers St., New York.

Adolph Kaator & Bros., 109 Duane St., New York.

National Cutlery Co., Detroit, Mich.
F. A. Reichardt & Co., 391 Broadway, New York.

A. L. Silberstein, 459-461 Broadway, N. Y.
Smith & Hemenway Co., 108-110 Duane St., New York.

Wiebusch & Hilger, 9-15 Murray St., N. Y.

Razors, Safety—

Cronk & Carrier Mfg. Co., Elmira, N. Y.
Gillette Sales Co., Times Bldg., N. Y.

Kampfe Bros., 8-12 Reade St., New York.
Kirtland Bros. & Co., 90 Chambers St., New York.

F. A. Reichardt & Co., 391 Broadway, New York.

A. L. Silberstein, 459-461 Broadway, N. Y.

Razors, Safety Corn—

Kampfe Bros., 8-12 Reade St., New York.

Reamer Grinders, Holders.

Wrenches—

(See Grinders, Holders, Wrenches.)

Real Estate—

(See Manufacturing Sites.)

Reamers—

American Die & Tool Co., Reading, Pa.

Brown & Sharpe Mfg. Co., Providence, R. I.

Buck Bros., Millbury, Mass.

Charles Buck Edge Tool Co., Millbury, Mass.

Butterfield & Co., Derby Line, Vt.

C. B. Chadwick Co., Portsmouth, N. H.

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Cleveland Twist Drill Co., Cleveland, O.

Gem Mfg. Co., Pittsburgh, Pa.

J. M. King & Co., Watford, N. Y.

Lincoln-Williams Twist Drill Co., Taunton, Mass.

H. H. Mayhew Co., Shelburne Falls, Mass.

Morse Twist Drill & Machine Co., New Bedford, Mass.

H. Mueller Mfg. Co., Decatur, Ill.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

John M. Rogers, Boat, Gauge & Drill Works, Gloucester City, N. J.

Standard Tool Co., Cleveland, O.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Tuck Mfg. Co., Brockton, Mass.

Vaughan & Bushnell Mfg. Co., Chicago.

Waiworth Mfg. Co., Boston, Mass.

Wells Bros. Co., Greenfield, Mass.

Western Tool & Mfg. Co., Springfield, O.

Whitman & Barnes Mfg. Co., Chicago.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Reamers, Adjustable—

Butterfield & Co., Derby Line, Vt.

C. B. Chadwick Co., Portsmouth, N. H.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.

John M. Rogers, Boat, Gauge & Drill Works, Gloucester City, N. J.

Standard Tool Co., Cleveland, O.

Wells Bros. Co., Greenfield, Mass.

Western Tool & Mfg. Co., Springfield, O.

Reamers, Belt—

Billings & Spencer Co., Hartford, Ct.

Reamers, Pipe—

(See Taps and Reamers, Pipe.)

Reaming Machines—

(See Tapping and Reaming Machines.)

Reaming Machines, Gun

Barrel—

F. E. Reed Co., Worcester, Mass.

Reboring Engine Cylinders

in Place—

John T. Lindstrom, Allentown, Pa.,

Receivers, Air—

Bury Compressor Co., Erie, Pa.

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Ingersoll-Rand Co., 11 Broadway, N. Y.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh.

Receivers, Gas—

Wm. B. Scaife & Sons Co., Pittsburgh.

Reckoning Machines—

(See Adding, Computing and Reckoning Machines.)

Recorders, Cash Auto-

graph—

Hough Cash Recorder Co., Indian Orchard, Mass.

Recorders, Steam, Speed—

(See Indicators, Steam, Speed.)

Recorders, Time—

C. Nanz & Co., 127 Duane St., New York.

Stiggs & Bro., 310 Market St., Philadelphia, Pa.

Simplex Time Recorder Co., Gardner, Mass.

Recording Instruments.

Temperature—

Bristol Co., Waterbury Ct.

Edward Brown & Son, 311 Walnut St., Philadelphia, Pa.

Reducers, Hose—

(See Hose Attachments.)

Reducers, Stove Pipe—

Edwards Mfg. Co., Cincinnati, O.

Reducing Rings, Valves—

(See Rings, Valves.)

Reducing Wire—

(See Wire Pointing, &c.)

Reels, Attachments, Barb

Wire—

Rock River Mfg. Co., Dixon, Ill.

Reels, Chalk Line—

W. H. Hartigan, Collinsville, Ct.

Stanley Rule & Level Co., New Britain, Ct.

Union Hardware Co., Torrington, Ct.

Reels, Cloth Line—

Pleuger & Henger Mfg. Co., St. Louis.

Rock River Mfg. Co., Dixon, Ill.

Schreiber and Conchar Mfg. Co., Dubuque, Ia.

John Sommer's Son, Newark, N. J.

Reels, Fishing—

Enterprise Mfg. Co., Akron, O.

Andrew B. Hendryx Co., New Haven, Ct.

John Sommer's Son, Newark, N. J.

Reels, Hose—

Caldwell Mfg. Co., Rochester, N. Y.

Hollands Mfg. Co., Erie, Pa.

R. W. Whitehurst & Co., Norfolk, Va.

Reels, Rope—

Udell Works, Indianapolis, Ind.

Reels, Twine—

Rock River Mfg. Co., Dixon, Ill.

- Reels, Wire—**
Blake & Johnson, Waterbury, Ct.
Mason Regulator Co., Boston, Mass.
Morgan Construction Co., Worcester, Mass.
F. B. Shuster Co., New Haven, Ct.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
Wright Wire Co., Worcester, Mass.
- Reels, Wire Rod—**
Morgan Construction Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.
- Reels, Wooden—**
E. B. Estes & Sons, 45-47 John St., N. Y.
Sandusky Tool Co., Sandusky, O.
- Reels, Yarn—**
Brown & Sharpe Mfg. Co., Providence, R. I.
- Refining Plants, Oil—**
Ritter-Conley Mfg. Co., Pittsburgh, Pa.
- Reflectors, Lamp—**
Plume & Atwood Mfg. Co., Waterbury, Ct.
- Reflectors, Locomotive—**
Waterbury Brass Co., Waterbury, Ct.
- Refrigerating Machinery—**
Vilter Mfg. Co., Milwaukee, Wis.
- Refrigerator Catches, Latches, Locks—**
(See Catches, &c.)
- Refrigerators and Ice Chests—**
Maine Mfg. Co., Nashua, N. H.
- Refrigerators, Iceless—**
Dana Mfg. Co., Cincinnati, O.
- Registers and Ceiling Plates, Stove Pipe—**
Arcade Mfg. Co., New York, Ill.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Register & Henger Mfg. Co., St. Louis.**
Schreiber & Conchar Mfg. Co., Dubuque, Ia.
- Registers, Faces and Borders—**
Columbian Hardware Co., Cleveland, O.
Fanner Mfg. Co., Cleveland, O.
Hess-Snyder Co., Massillon, O.
Pleuger & Henger Mfg. Co., St. Louis.
Rock River Mfg. Co., Dixon, Ill.
Schreiber & Conchar Mfg. Co., Dubuque, Ia.
- Registers, Distance—**
Veeder Mfg. Co., Hartford, Ct.
- Registers, Hand Tally—**
W. N. Durant Co., Milwaukee, Wis.
R. Woodman Mfg. & Supply Co., Boston.
- Regulators, Damper—**
Julian D'Este Co., Boston, Mass.
- Mason Regulator Co., Boston, Mass.**
McNab & Harlin Mfg. Co., 56 John St., New York.
- Walworth Mfg. Co., Boston, Mass.**
- Regulators, Feed Water—**
Crosby Steam Gage & Valve Co., Boston.
- Walworth Mfg. Co., Boston, Mass.**
- Regulators, Gas—**
Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.
- Regulators, Pump, Pressure—**
Julian D'Este Co., Boston, Mass.
Mason Regulator Co., Boston, Mass.
H. Mueller Mfg. Co., Decatur, Ill.
Ohio Brass Co., Mansfield, O.
- Regulators, Temperature—**
Julian D'Este Co., Boston, Mass.
- Regulators, Upholsterers'—**
Tuck Mfg. Co., Brockton, Mass.
- Reheaters, Compressed Air—**
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, N. Y.
Whitlock Coil Pipe Co., Hartford, Ct.
- Reloading Cartridge Tools—**
(See Tools, Reloading, Cartridge.)
- Removers, Paint and Varnish—**
(See Varnish and Paint Removers.)
- Repair Kits, Cobblers'—**
(See Cobblers' Kits.)
- Repair Links—**
(See Links, Repair.)
- Repair Materials, Iron Casting—**
Smooth-On Mfg. Co., Jersey City, N. J.
- Repairs, Stove—**
(See Stove Repairs.)
- Re-Sawing Machinery—**
Wickes Bros., Saginaw, Mich.
- Rescators, Boiler Head, Cap and Nut—**
Maurer, Labadie & Co., South Bend, Ind.
- Reservoirs, Oil—**
Erie Stamping & Mfg. Co., Erie, Pa.
- Reservoirs, Seamless Drawn Steel for Air Brakes—**
Pressed Steel Tank Co., Milwaukee, Wis.
- Resistance Wire—**
(See Wires, Electrical.)
- Rests, Foot, Shoe Blacking—**
Chicago Spring Butt Co., Chicago, Ill.
Columbia Grey Iron Co., Columbia, Pa.
John C. Kuperle, St. Louis, Mo.
Pleuger & Henger Mfg. Co., St. Louis, Mo.
Reading Hardware Co., Reading, Pa.
Root Bros. Co., Plymouth, O.
Louis Sacks, Newark, N. J.
Wrightsville Hardware Co., Wrightsville, Pa.
- Rests, Meat, Wire—**
(See Household Articles, Wire.)
- Rests, Shelf—**
(See Pins, Shelf.)
- Rests, Shirt, Wire—**
(See Household Articles, Wire.)
- Rests, Slide—**
Massachusetts Tool Co., Greenfield, Mass.
F. E. Reed & Co., Worcester, Mass.
- Rests, Stove Leg—**
Fanner Mfg. Co., Cleveland, O.
Kramer Bros. Foundry Co., Dayton, O.
- Retorts, Clay—**
Cyrus Borgmer, 23d St., above Race, Philadelphia, Pa.
Harbison-Walker Refractories Co., Pittsburgh, Pa.
- Laclede Fire Brick Mfg. Co., St. Louis.**
Henry Maurer & Son, 42 East 23d St., New York.
- Retorts for Wood Alcohol Work—**
E. Keeler Co., Williamsport, Pa.
Struthers, Wells & Co., Warren, Pa.
- Retorts, Iron—**
Arcade Malleable Iron Co., Worcester, Mass.
- Reverse Marine Gears—**
(See Gears, Marine Reverse.)
- Revolution Counters—**
(See Indicators, Speed.)
- Revolvers—**
(See Pistols and Revolvers.)

Rheostat Cable—

(See Wires, Electrical.)

Rheostats—

General Electric Co., Schenectady, N. Y.
Mason Regulator Co., Boston, Mass.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
Zucker & Levett & Loeb Co., 526-530 W. 25th St., New York.

Ribbon, Sash—

Caldwell Mfg. Co., Rochester, N. Y.
Pullman Mfg. Co., Rochester, N. Y.

Riddles and Sieves—

Buffalo Wire Works Co., Buffalo, N. Y.
Edward Darby & Sons, 235-235 Arch St., Philadelphia, Pa.
Erdle Perforating Co., Rochester, N. Y.
Estey Wire Works Co., 59 Fulton St., New York.

Forest City Steel & Iron Co., Cleveland, O.

Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

Howard & Morse, 45 Fulton St., N. Y.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Chas. Mundt & Sons, 441-447 Pearl St., New York.

S. Obermayer Co., Cincinnati, O.

Osborn Mfg. Co., Cleveland, O.

J. W. Paxson Co., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleveland, O.

John P. Smith & Co., New Haven, Ct.

W. S. Tyler Co., Cleveland, O.

Wright Wire Co., Worcester, Mass.

Ridging, Metal—

Berger Mfg. Co., Canton, O.

Edwards Mfg. Co., Cincinnati, O.

Garry Iron & Steel Co., Cleveland, O.

Merchant & Evans Co., 517 Arch St., Philadelphia, Pa.

Reeves Mfg. Co., Canal Dover, O.

Ridging, Ventilated—

Globe Ventilator Co., Troy, N. Y.

Riffers, Bent—

Henry Diston & Sons, Philadelphia, Pa.

Nicholson File Co., Providence, R. I.

E. P. Reichelm & Co., 23 John St., N. Y.

Rifles, Carbines, &c.—

Marlin Fire Arms Co., New Haven, Ct.

Remington Arms Co., 313 Broadway, N. Y.

J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

Rifles, Scythe—

Chicago Wheel & Mfg. Co., 39 W. Randolph St., Chicago, Ill.

Pike Mfg. Co., Pike, N. H.

Rifling Machines, Gun Barrel—

Pratt & Whitney Co., Hartford, Ct.

Rift Saws—

(See Saws, Rift.)

Rim Rolling Machines, Automobile and Bicycle—

Blake & Johnson, Waterbury, Ct.

Rim Steel for Pneumatic Wheels—

(See Steel, Rim.)

Rims, Automobile—

American Tube & Stamping Co., Bridgeport, Ct.

Standard Welding Co., Cleveland, O.

Rims, Bicycle—

(See Bicycle Parts.)

Ring Bolts, Gauges —

(See Bolts, Gauges.)

Ring Machines, Wire—

Blake & Johnson, Waterbury, Ct.
W. Bliss Co., Brooklyn, N. Y.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Chas. Lefler & Co., Brooklyn, N. Y.
F. B. Shuster Co., New Haven, Ct.

Rings and Ringers, Hog—

Rock River Mfg. Co., Dixon, Ill.
Root Bros. Co., Plymouth, Ill.
F. P. Smith & Co., Sharon Hill, Pa.

Rings, Box, Curtain and Shade, Brass—

American Ring Co., Waterbury, Ct.

Rings, Brass—

Standard Welding Co., Cleveland, O.

W. & J. Tiebout, 118 Chambers St., N. Y.

Rings, Bridle, Electrical—

Diamond Expansion Bolt Co., 9-15 Murray St., New York.

Rings, Bull—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Rings, Clinch—

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Rings, Flush—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

W. & J. Tiebout, 118 Chambers St., N. Y.

Rings, Fruit Jar—

New York Belting & Packing Co., 91-93 Chambers St., New York.

Rings, Hitching—

M. Lanz & Sons, Pittsburg, Pa.

Ney Mfg. Co., Canton, O.

Parker Wire Goods Co., Worcester, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

W. & J. Tiebout, 118 Chambers St., N. Y.

Vaughan & Bushnell Mfg. Co., Chicago.

Wire Goods Co., Worcester, Mass.

Rings, Iron—

Standard Chain Co., Pittsburgh, Pa.

Rings, Key—

Billings & Spencer Co., Hartford, Ct.

Smith & Hemerway Co., 108-110 Duane St., New York.

Rings, Lap or Open—

Seneca Chain Co., Kent, O.

Standard Chain Co., Pittsburgh, Pa.

(See also Links, Repair.)

Rings, Malleable Iron—

R. C. Jenkinson & Co., Newark, N. J.

W. & J. Tiebout, 118 Chambers St., N. Y.

Rings, Napkin, Silver Plated—

International Silver Co., 9-13 Maiden Lane, New York.

Rings, on Plates—

W. & J. Tiebout, 118 Chambers St., N. Y.

Rings, Pole—

M. Lanz & Sons, Pittsburg, Pa.

Rings, Pole—

(See Telegraph and Telephone Pole Supplies.)

Rings, Reducing, Stove Lid—

H. Mueller Mfr. Co., Decatur, Ill.

Schreiber & Conchar Mfg. Co., Dubuque, Ia.

Rings, Rock Crusher—

Chrome Steel Works, Chrome, N. J.

- Rings, Rubber**—
(See Gaskets and Rings, Rubber.)
- Rings, Steel**—
Standard Welding Co., Cleveland, O.
- Rings, Towel**—
(See Racks, Bars and Rings.)
- Rings, Wire**—
Spencer Wire Co., Worcester, Mass.
Standard Welding Co., Cleveland O.
- Rings, Wire, D and Round**—
R. C. Jenkinson & Co., Newark, N. J.
- Rings, Wooden**—
E. B. Estes & Sons, 45-47 John St., N. Y.
- Rings, Wrought Iron**—
Seneca Chain Co., Kent, O.
- Rings, Wrought, Man and Hand Hole**—
A. P. Wittman & Co., 233-237 Cherry St., Philadelphia, Pa.
- Rings, Wrought Steel**—
A. P. Wittman & Co., 233-237 Cherry St., Philadelphia, Pa.
- Ripping Chisels**—
(See Chisels, Floor and Ripping.)
- Rivet Clippers, Headers, Rods**—
(See Clippers, Headers, Rods.)
- Rivet Drilling Machines**—
F. B. Shuster Co., New Haven, Ct.
- Rivet Iron**—
(See Iron, Rivet.)
- Rivet Machinery**—
Acme Machinery Co., Cleveland, O.
Blake & Johnson, Waterbury, Ct.
E. J. Manville Mach. Co., Waterbury, Ct.
National Machinery Co., Tiffin, O.
Waterbury Foundry & Machine Co., Waterbury, Ct.
- Rivet Sets, Tonga**—
(See Sets, Tonga.)
- Rivet Wire**—
(See Wire, Rivet.)
- Riveted Pine Plants**—
(See Pine Plants, Riveted.)
- Riveted Work**—
(See Buildings and Bridges.)
- Riveters, Bicycle, Chain**—
McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.
- Riveters for Tubular and Biturated Rivets**—
F. H. Smith Mfg. Co., 18-30 W. Randolph St., Chicago, Ill.
- Riveters, Hand**—
Chester B. Albee Iron Works Co., Allegheny, Pa.
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
Davis Mfg. Co., Milwaukee, Wis.
Root Bros. Co., Plymouth, O.
F. H. Smith Mfg. Co., 18-30 W. Randolph St., Chicago, Ill.
- Riveters, Hydraulic**—
Alliance Machine Co., Alliance, O.
Chambersburg Engineering Co., Chambersburg, Pa.
Fischer Foundry & Machine Co., Pittsburgh, Pa.
Mackintosh, Hemphill & Co., Pittsburgh.
Niles-Bement-Pond Co., 111 Broadway, New York.
Wm. Sellers & Co., Inc., 1600 Hamilton St., Philadelphia, Pa.
Watson-Stillman Co., 46 Dev St., N. Y.
Wickes Bros., Saginaw, Mich.
- R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
- MERCHANTS**
Fairbanks Co., 416 Broome St., New York.
Hill, Clarke & Co., Boston, Mass.
Power Specialty Co., 111 Broadway, N. Y.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
Stiles-Morse Co., Western Union Bldg., Chicago, Ill.
- Riveters, Hydro-Pneumatic**—
Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
- Riveters, Pneumatic**—
Chester B. Albee Iron Works Co., Allegheny, Pa.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
General Pneumatic Tool Co., Montour Falls, N. Y.
Ingersoll-Rand Co., 11 Broadway, N. Y.
Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
Wm. Sellers & Co. (Inc.), Philadelphia.
- MERCHANTS**
Baird Machinery Co., Pittsburgh, Pa.
Fairbanks Co., 416 Broome St., New York.
Hill, Clarke & Co., Boston, Mass.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
- Riveters, Portable**—
Chester B. Albee Iron Works Co., Allegheny, Pa.
Alliance Machine Co., Alliance, O.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Chambersburg Engineering Co., Chambersburg, Pa.
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
General Pneumatic Tool Co., Montour Falls, N. Y.
Mackintosh, Hemphill & Co., Pittsburgh.
Niles-Bement-Pond Co., 111 Broadway, New York.
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
- MERCHANTS**
Browning Engineering Co., Cleveland, O.
Fairbanks Co., 416 Broome St., N. Y.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
Wickes Bros., Saginaw, Mich.
- Riveters, Steam**—
Chester B. Albee Iron Works Co., Allegheny, Pa.
Alliance Machine Co., Alliance, O.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
General Pneumatic Tool Co., Montour Falls, N. Y.
Niles-Bement-Pond Co., 111 Broadway, New York.

Riveting Machinery—

Adriance Machine Works, Brooklyn, N. Y.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
E. W. Bliss Co., Brooklyn, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa.
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.
Diamond Drill & Machine Co., Birdsboro, Pa.
Fischer Foundry & Machine Co., Pittsburgh, Pa.
Garvin Machine Co., Spring & Varick Sts., New York.
General Pneumatic Tool Co., Montour Falls, N. Y.
Grant Mfg. & Machine Co., Bridgeport, Ct.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Hilles & Jones Co., Wilmington, Del.
Harvey Hubbell, Bridgeport, Ct.
Long & Alistatter Co., Hamilton, O.
Mackintosh, Hemphill & Co., Pittsburgh.
New Doty Mfg. Co., Janesville, Wis.
Niagara Machine & Tool Works, Buffalo.
Niles-Rement-Pond Co., 111 Broadway, New York.
Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
Wm. Sellers & Co. (Inc.), Philadelphia.
F. B. Shuster Co., New Haven, Ct.
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
Fred J. Swaine Co., St. Louis, Mo.
Watson-Stillman Co., 46 Dev St., N. Y.
Williams, White & Co., Moline, Ill.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.
Hill, Clarke & Co., Boston, Mass.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
Stiles-Morse Co., Western Union Bldg., Chicago, Ill.
Thornton Machinery Co., Providence, R. I.
Wickes Bros., Saginaw, Mich.

Rivets and Bars, Copper—

Blake & Johnson, Waterbury, Ct.
Bridgeport Brass Co., 253 B'way, N. Y.
Grand Crossing Tack Co., Grand Crossing, Ill.
John Hassall, Brooklyn, N. Y.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Plume & Atwood Mfg. Co., Waterbury, Ct.
Progressive Mfg. Co., Torrington, Ct.
C. C. & E. P. Townsend Co., New Brighton, Pa.
Waterbury Brass Co., Waterbury, Ct.

Rivets, Bolt—

Blake & Johnson, Waterbury, Ct.
Fort Pitt Forge Co., Pittsburgh, Pa.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Mount Carmel Bolt Co., Mt. Carmel, Ct.

Rivets, Brass—

Blake & Johnson, Waterbury, Ct.
Cobb & Drew, Plymouth, Mass.
Grand Crossing Tack Co., Grand Crossing, Ill.

John Hassall, Brooklyn, N. Y.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
Progressive Mfg. Co., Torrington, Ct.
Arthur T. Rutter & Co., 256 Broadway, New York.
C. C. & E. P. Townsend Co., New Brighton, Pa.

Rivets, Braziers—

Blake & Johnson, Waterbury, Ct.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
Plume & Atwood Mfg. Co., Waterbury, Ct.
Scovill Mfg. Co., Waterbury, Ct.

Rivets, Clinch—

Grand Crossing Tack Co., Grand Crossing, Ill.

Rivets, Coppersmiths—

Blake & Johnson, Waterbury, Ct.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Waterbury Brass Co., Waterbury, Ct.

Rivets, Galvanized—

C. C. & E. P. Townsend Co., New Brighton, Pa.

Rivets, German Silver—

John Hassall, Brooklyn, N. Y.

Rivets, Hinge—

Blake & Johnson, Waterbury, Ct.
Grand Crossing Tack Co., Grand Crossing, Ill.

Mount Carmel Bolt Co., Mt. Carmel, Ct.
C. C. & E. P. Townsend Co., New Brighton, Pa.

Rivets, Iron and Steel—

American Bridge Co. of New York, 42 Broadway, New York.
American Iron & Steel Mfg. Co., Lebanon, Pa.
American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, O.
Belmont Iron Works, Inc., Philadelphia.
Charles H. Besly & Co., 15-21 Clinton St., Chicago, Ill.
Burden Iron Co., Troy, N. Y.
Blake & Johnson, Waterbury, Ct.
Clark Bros. Bolt Co., Milldale, Ct.
Cobb & Drew, Plymouth, Mass.
Falls River & Machine Co., Cuyahoga Falls, O.
Forest City Steel & Iron Co., Cleveland.
Fort Pitt Forge Co., Pittsburgh, Pa.
Garland Nut & Rivet Co., Pittsburgh, Pa.
Grand Crossing Tack Co., Grand Crossing, Ill.
John Hassall, Brooklyn, N. Y.
R. C. Jenkinson & Co., Newark, N. J.
Jones & Laughlin Steel Co., Pittsburgh.
M. Lanz & Son, Pittsburgh, Pa.
Franklin Moore Co., Winsted, Ct.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
New Castle Forge & Bolt Co., New Castle, Pa.
Ohio Nut & Bolt Co., Berea, O.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Progressive Mfg. Co., Torrington, Ct.
Republic Iron & Steel Co., Chicago, Ill.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Russell, Burdall & Ward Bolt & Nut Co., Portchester, N. Y.
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
J. H. Sessions & Son, Bristol, Ct.
C. C. & E. P. Townsend Co., New Brighton, Pa.
Upson Nut Co., Cleveland, O.

Rivets, Oyster Tong—
W. & J. Tiebout, 118 Chambers St., N. Y.

Rivets, Platinum—

Baker & Co., Inc., Newark, N. J.

Road Rollers, Scrapers—

(See Rollers, Scrapers.)

Roasting and Baking Pans—

(See Pans, Roasting and Baking.)

Rock Face Stone—

(See Ceiling and Siding, Iron and Steel.)

Rocker Springs—

(See Springs, Rocker.)

Rod Cutters, Headers—

(See Cutters, Headers.)

Rod Mill Machinery—

Morgan Construction Co., Worcester, Mass.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Rod Reels, Wire—

(See Reels, Wire Rod.)

Rod Tapering Mills—

(See Mills, Rod Tapering.)

Rods, Anchor, Bridge, &c.—

M. Lanz & Son, Pittsburgh, Pa.

Rods, Avining—

Forest City Steel & Iron Co., Cleveland, O.

Rods, Bessemer Coppered—

National Wire Corporation, New Haven, Ct.

Rods, Black Steel—

Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.

Rods, Brass, Copper—

(See Brass and Copper Rods.)

Rods, Bright Machine

Screw—

Cleveland Wire Spring Co., Cleveland, O.

National Wire Corporation, New Haven, Ct.

Rods, Bronze—

Bridgeport Brass Co., 253 B'way, N. Y.

Phosphor-Bronze Smelting Co., 3200 Washington Ave., Philadelphia, Pa.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Riverside Metal Co., Riverside, N. J.

Arthur T. Rutter & Co., 256 Broadway, New York.

Waterbury Brass Co., Waterbury, Ct.

Rods, Connecting—

Erie Forge Co., Erie, Pa.

Richmond Forgings Corporation, Richmond, Va.

Tindel-Morris Co., Eddystone, Pa.

Titusville Forge Co., Titusville, Pa.

Rods, Coppered Steel—

Patriarche & Bell, 215 Pearl St., N. Y.

Rods, Curtain—

E. B. Estes & Sons, 45-47 John St., N. Y.

Lindlow-Saylor Wire Co., St. Louis, Mo.

National Wire Corporation, New Haven, Ct.

Ossawan Mills Co., Norwich, Ct.

Parker Wire Goods Co., Worcester, Mass.

Pullman Mfg. Co., Rochester, N. Y.

Spencer Wire Co., Worcester, Mass.

Turner & Seymour Mfg. Co., Torrington, Ct.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Rods, Dental Octagon—

Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.

Rods, Dowel—

E. B. Estes & Sons, 45-47 John St., N. Y.

Rods, Extension—

American Ring Co., Waterbury, Ct.

Rods, Fishing—

Clark, Horrocks Co., Utica, N. Y.

Dame, Stoddard & Co., Boston, Mass.

Rods, Garment Hanger—

Pullman Mfg. Co., Rochester, N. Y.

Rods, Gauging, &c.—

Chapin-Stephens Co., Pine Meadow, Ct.

Stanley Rule & Level Co., New Britain, Ct.

Upson Nut Co., Cleveland, O.

Rods, German Silver—

Bridgeport Brass Co., 253 B'way, N. Y.

Riverside Metal Co., Riverside, N. J.

Arthur T. Rutter & Co., 256 Broadway, New York.

Waterbury Brass Co., Waterbury, Ct.

Rods, Gun and Rifle Clean-

ing—

E. B. Estes & Sons, 45-47 John St., N. Y.

Handy Things Co., Ludington, Mich.

W. R. Hartigan, Collinsville, Ct.

J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

Rods, Gun Screw—

Cleveland Wire Spring Co., Cleveland, O.

National Wire Corporation, New Haven, Ct.

Rods, Guy—

M. Lanz & Sons, Pittsburgh, Pa.

Rods, Hitching Post—

(See Hitching Post Rods.)

Rods, Key—

Columbia Bridge Co., Pittsburgh, Pa.

Rods, Lap—

Cleveland Cap Screw Co., Cleveland, O.

Rods, Leveling—

Keuffel & Esser Co., 127 Fulton St., N. Y.

Rods, Miter—

National Saw Co., Newark, N. J.

Rods, Nail and Rivet—

National Wire Corporation, New Haven, Ct.

Rods, Piston—

Columbia Bridge Co., Pittsburgh, Pa.

Erie Forge Co., Erie, Pa.

Finished Steel Co., Youngstown, O.

Jones & Laughlin Steel Co., Pittsburgh.

Samuel Osborn & Co., Boston, Mass.

Phosphor-Bronze Smelting Co., Ltd., 2300 Washington Ave., Philadelphia, Pa.

Rods, Pump—

Columbia Bridge Co., Pittsburgh, Pa.

Finished Steel Co., Youngstown, O.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Phosphor-Bronze Smelting Co., Ltd., 2300 Washington Ave., Philadelphia, Pa.

Rods, Resistance, Electric—

Jos. Dixon Crucible Co., Jersey City.

Rods, Rivet—

Carnegie Steel Co., Pittsburgh, Pa.

Rods, Roller Bearing—

Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.

Rods, Saw—

E. C. Atkins & Co., Indianapolis, Ind.

Geo. H. Bishop & Co., Cincinnati, O.

Henry Disston & Sons, Philadelphia, Pa.

National Saw Co., Newark, N. J.

Charles Parker Co., Meriden, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Simonds Mfg. Co., Fitchburg, Mass.

Rods, Screw—

Columbia Bridge Co., Pittsburgh, Pa.

Finished Steel Co., Youngstown, O.

National Wire Corporation, New Haven, Ct.

Rods, Stow & Wilcox Co., 27 Murray St., New York.

- Rods, Screw Driver Steel—**
Kidd Bros. & Burgher Steel Wire Co.,
Aliquippa, Pa.
- Rods, Steel Drill—**
Kidd Bros. & Burgher Steel Wire Co.,
McKee's Rocks, Pa.
- Rods, Stove, Range and
Furnace—**
American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, O.
Fanner Mfg. Co., Cleveland, O.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
Ohio Nut & Bolt Co., Berea, O.
Russell, Burdall & Ward Bolt & Nut
Co., Port Chester, N. Y.
- Rods, Tap and Reamer—**
Kidd Bros. & Burgher Steel Wire Co.,
McKee's Rocks, Pa.
- Rods, Tie—**
American Bridge Co. of New York, 42
Broadway, New York.
American Iron & Steel Mfg. Co., Leb-
anon, Pa.
Berlin Construction Co., Berlin, Ct.
Fort Pitt Forge Co., Pittsburgh, Pa.
Samuel Hall's Sons, 229-233 W. 10th St.,
New York.
Matthew Lanz & Sons, Pittsburgh, Pa.
New Castle Forge & Bolt Co., New Castle,
Pa.
- Rods, Upset—**
American Bridge Co. of New York, 42
Broadway, New York.
American Iron & Steel Mfg. Co., Leb-
anon, Pa.
Fort Pitt Forge Co., Pittsburgh, Pa.
New Castle Forge & Bolt Co., New Castle,
Pa.
- Rods, Ventilator—**
(See Ventilator, Controlling Rods.)
- Rods, Wire—**
Columbia Bridge Co., Pittsburgh, Pa.
Grand Crossing Tack Co., Grand Crossing,
Ill.
Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven,
Ct.
Scoville Mfg. Co., Waterbury, Ct.
S. & C. Wardlow, 95 John St., New York.
Washburn Wire Co., Phillipadale, R. I.
Wickwire Bros., Cortland, N. Y.
- Roll Brass, Bronze, Cop-
per—**
(See Brass, Bronze, Copper.)
- Roll Grinding, Jewelers'—**
Standard Machinery Co., Providence, R. I.
- Roll Shells—**
(See Shells, Roll.)
- Roll Shells, Crushing—**
Taylor Iron & Steel Co., High Bridge,
N. J.
- Roll Top Decks—**
(See Des's, Office.)
- Roll Turners' Tools—**
Heppenstall Forge & Knife Co., Pitts-
burgh, Pa.
- Rollers, Bearings, Skat.
Stays—**
(See Bearings, Skates, Stays.)
- Roller Bearing Steel—**
(See Steel, Roller Bearing.)
- Roller Leveling Machines
For Sheets—**
Bertsch & Co., Cambridge City, Ind.
- Rollers, Bogie—**
Bethlehem Foundry & Machine Co.,
South Bethlehem, Pa.
- Rollers, Caster—**
(See Wheels, Caster, Wooden.)
- Rollers, Door—**
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.
- Rollers, Garden—**
Reading Hardware Co., Reading, Pa.
Wrightsville Hardware Co., Wrightsville,
Pa.
- Rollers, Glass—**
R. W. Whitehurst Co., Norfolk, Va.
- Rollers, Land—**
Utica Drop Forge & Tool Co., Utica,
N. Y.
- Rollers, Lawn—**
A. Buch's Sons Co., Elizabethtown, Pa.
Cutaway Harrow Co., Higgenum, Ct.
R. W. Whitehurst Co., Norfolk, Va.
- Rollers, Paper Hangers—**
E. B. Estes & Sons, 45-47 John St., N. Y.
- Rollers, Road—**
A. Buch's Sons Co., Elizabethtown, Pa.
Thos. Carlin's Sons, Allegheny, Pa.
R. W. Whitehurst Co., Norfolk, Va.
- Rollers, Sash—**
Ney Mfg. Co., Canton, O.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.
- Rollers, Skate—**
(See Wheels, Roller Skate.)
- Rollers, Stay—**
Chicago Spring Butt Co., Chicago, Ill.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Davis Mfg. Co., Milwaukee, Wis.
Griffin Mfg. Co., Erie, Pa.
Lane Bros. Co., Poughkeepsie, N. Y.
Lawrence Bros., Sterling, Ill.
Louden Machinery Co., Fairfield, Ia.
McKinney Mfg. Co., Canton, O.
National Mfg. Co., Sterling, Ill.
Ney Mfg. Co., Canton, O.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.
- Rollers, Trunk—**
J. E. Porter Co., Ottawa, Ill.
Reading Hardware Co., Reading, Pa.
Richards Mfg. Co., Aurora, Ill.
- Rollers, Towel—**
Wm. B. Scaife & Sons Co., Pittsburgh.
- Rollers, Trunk—**
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.
- Rolling Machinery, Hoe—**
Udell Works, Indianapolis, Ind.
- Rolling Mill Gauges—**
(See Gauges, Rolling Mill.)
- Rolling Mill Machinery—**
Allentown Rolling Mills, Allentown, Pa.
Alliance Machine Co., Alliance, O.
Atlas Car & Mfg. Co., Cleveland, O.
Bertsch & Co., Cambridge City, Ind.
Birdsboro Steel Foundry & Machine Co.,
Birdsboro, Pa.
Birmingham Iron Foundry, Derby, Ct.
Blake & Johnson, Waterbury, Ct.
Farrel Foundry & Machine Co., Ansonia,
Ct.
Fawcus Machine Co., Pittsburgh, Pa.

Fischer Foundry & Machine Co., Pittsburgh, Pa.
 Heppenstall Forge & Knife Co., Pittsburgh, Pa.
 Hilles & Jones Co., Wilmington, Del.
 George A. Hogg Iron & Steel Foundry Co., Pittsburgh, Pa.
 Lewis Foundry & Machine Co., Pittsburgh, Pa.
 J. H. Lingle, Bellefonte, Pa.
 Niesta Machine Co., Pittsburgh, Pa.
 Morgan Construction Co., Worcester, Mass.
 R. S. Newbold & Son Co., Norristown, Pa.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 George A. Ohl & Co., Newark, N. J.
 Pennsylvania Engineering Works, New Castle, Pa.
 Philadelphia Roll & Machine Co., 23d St., & Washington Ave., Philadelphia.
 Pittsburgh Industrial Iron Works, Pittsburgh, Pa.
 Poole Engineering & Machine Co., Baltimore, Md.
 William Tod Co., Youngstown, O.
 United Engineering & Foundry Co., Pittsburgh, Pa.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
 Wellman-Seaver-Morgan Co., Cleveland, O.
 Wheeling Mold & Foundry Co., Wheeling, W. Va.
 Wright Wire Co., Worcester, Mass.

MERCHANTS.

J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 Barclay M. Everson, Pittsburgh, Pa.
 A. V. Kaiser & Co., 222 S. Third St., Philadelphia, Pa.
 Arthur G. McKee, Cleveland, O.
 Marshall & Huschart Machinery Co., 62 Canal St., Chicago, Ill.
 F. E. Pfannmueller & Co., First National Bank Bldg., Chicago, Ill.
 Phillips-Laffitte Co., Pennsylvania Bldg., Philadelphia, Pa.
 Stiles-Morse Co., Western Union Bldg., Chicago, Ill.
 Wickes Bros., Saginaw, Mich.

Rolling Mill Machinery.

Brass and Copper—
 Birmingham Iron Foundry, Derby, Ct.
 Blake & Johnson, Waterbury, Ct.
 Farrel Foundry & Machine Co., Ansonia, Ct.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
 Wright Wire Co., Worcester, Mass.

Rolling Mill Machinery.

Gold and Silver—
 Birmingham Iron Foundry, Derby, Ct.
 Blake & Johnson, Waterbury, Ct.
 Farrel Foundry & Machine Co., Ansonia, Ct.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Rolling Mills. Lead—

Farrel Foundry & Machine Co., Ansonia, Ct.

Rolling Pins—

(See Pins, Rolling.)

Rolls, Beam Bending—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Thomas Carlin's Sons, Allegheny, Pa.

Fischer Foundry & Machine Co., Pittsburgh, Pa.
 Wm. Sellers & Co. (Inc.), Philadelphia.

Rolls, Bending and Straightening—

Badger State Machine Co., Janesville, Wis.
 Bertsch & Co., Cambridge City, Ind.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
 Thos. Carlin's Sons, Allegheny, Pa.
 Erie Forge Co., Erie, Pa.
 Fischer Foundry & Machine Co., Pittsburgh, Pa.
 Hilles & Jones Co., Wilmington, Del.
 Lewis Foundry & Machine Co., Pittsburgh, Pa.
 New Doty Mfg. Co., Janesville, Wis.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.
 Pittsburgh Mfg. Co., Pittsburgh, Pa.
 Wm. Sellers & Co. (Inc.), Philadelphia.
 Titusville Forge Co., Titusville, Pa.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
 Wickes Bros., Saginaw, Mich.
 Williams, White & Co., Moline, Ill.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
 Columbus Equipment Co., Columbus, O.
 J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 Fairbanks Co., 416 Broome St., New York.
 Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.
 Mote & Merryweather Machinery Co., Cleveland, O.
 New York Machinery Depot, 129 Broadway, New York.
 Phillips-Laffitte Co., Pennsylvania Bldg., Philadelphia, Pa.
 H. A. Rogers Co., 19 John St., New York.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Rolls, Coal Crushing—

Taylor Iron & Steel Co., High Bridge, N. J.

Rolls, Crimping, Metal—

Bertsch & Co., Cambridge City, Ind.
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
 New Doty Mfg. Co., Janesville, Wis.
 Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.**Rolls, Crushing—**

Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
 Thos. Carlin's Sons, Allegheny, Pa.
 Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.
 Farrel Foundry & Mach. Co., Ansonia, Ct.
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.
 United Engineering & Foundry Co., Pittsburgh, Pa.
 Wellman-Seaver-Morgan Co., Cleveland, O.

Rolls, Forging—
 Ajax Mfg. Co., Cleveland, O.
 Kilborn & Bishop Co., New Haven, Ct.
 Williams, White & Co., Moline, Ill.

Rolls, Granite, Chocolate—
 Est. of John Dickinson, 64 Nassau St., New York.

Rolls, Hand and Belt Power, Bending—
 Badger State Machine Co., Janesville, Wis.

Bertsch & Co., Cambridge City, Ind.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Hilles & Jones Co., Wilmington, Del.
 New Doty Mfg. Co., Janesville, Wis.
 Niagara Machine & Tool Works, Buffalo, N. Y.

Niles-Bement-Pond Co., 111 Broadway, New York.

George A. Ohl & Co., Newark, N. J.
 Wm. Sellers & Co. (Inc.), Philadelphia.
 Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.

Wichers Bros., Saginaw, Mich.
Rolls, Hardened Forged Steel—

Blake & Johnson, Waterbury, Ct.
 Heppenstall Forge & Knife Co., Pittsburgh, Pa.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

Rolls, Jewelers—
 Blake & Johnson, Waterbury, Ct.

E. J. Manville Mach. Co., Waterbury, Ct.
 Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Rolls, Paper—
 Farrel Foundry & Mach. Co., Ansonia, Ct.

Rolls, Rubber Covered—
 Geo. P. Clark Co., Windsor Locks, Ct.
 New York Belting & Packing Co., 91-93 Chambers St., New York.

Rolls, Sand, Chilled and Steel—
 Arcade Malleable Iron Co., Worcester, Mass.

Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

Birmingham Iron Foundry, Derby, Ct.
 Blake & Johnson, Waterbury, Ct.

Farrel Foundry & Mach. Co., Ansonia, Ct.
 George A. Hogg Iron & Steel Foundry Co., Pittsburgh, Pa.

Lewis Foundry & Machine Co., Pittsburgh, Pa.

Mesta Machine Co., Pittsburgh, Pa.
 Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia.

Seaman-Sleeth Co., Pittsburgh, Pa.
 Tindel-Morris Co., Eddystone, Pa.

United Engineering & Foundry Co., Pittsburgh, Pa.

Wheeling Mold & Foundry Co., Wheeling, W. Va.

Roof Bolts, Rods—
 (See Bolts, Rods.)

Roofing, Asbestos—
 H. W. Johns-Manville Co., 100 William St., New York.

National Roofing Co., Tonawanda, N. Y.

Roofing, Asphalt—
 Asphalt Ready Roofing Co., 136 Water St., New York.

Garry Iron & Steel Co., Cleveland, O.

National Roofing Co., Tonawanda, N. Y.
 Scott & Co., Cincinnati, O.

Stowell Mfg. Co., Jersey City, N. J.
 (See also Felts.)

Roofing, Asphalt Cork—
 Stowell Mfg. Co., Jersey City, N. J.

Roofing, Asphalt, Stone Covered—

Asphalt Ready Roofing Co., 136 Water St., New York.

Garry Iron & Steel Co., Cleveland, O.
 Scott & Co., Cincinnati, O.

Stowell Mfg. Co., Jersey City, N. J.

Roofing Brackets, Tongs—
 (See Brackets, Tongs.)

Roofing, Cement—
 Asphalt Ready Roofing Co., 136 Water St., New York.

Brown Hoisting Machinery Co., Cleveland, O.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Roofing, Doubled Refined Puddled Iron—

Youngtown Sheet & Tube Co., Youngstown, O.

Roofing in Rolls—
 American Sheet & Tin Plate Co., Pittsburgh, Pa.

Edwards Mfg. Co., Cincinnati, O.
 Garry Iron & Steel Co., Cleveland, O.

Scott & Co., Cincinnati, O.
 Youngtown Sheet & Tube Co., Youngstown, O.

Roofing, Iron and Steel—
 American Bridge Co. of New York, 42 Broadway, New York.

Boston Bridge Works, Boston, Mass.
 Berger Mfg. Co., Canton, O.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Edwards Mfg. Co., Cincinnati, O.
 Follansbee Bros. Co., Pittsburgh, Pa.

Forest City Steel & Iron Co., Cleveland, O.

Garry Iron & Steel Co., Cleveland, O.
 Goff, Homer & Co., Ltd., Pittsburgh, Pa.

McCullough Iron Co., Wilmington, Del.
 Merchant & Evans Co., 517 Arch St., Philadelphia, Pa.

New Process Steel & Wire Co., East St. Louis, Ill.

Reeves Mfg. Co., Canal Dover, O.
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Scott & Co., Cincinnati, O.
 Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
 Arthur C. Harvey Co., Boston, Mass.

McClellan & Orr, Monadnock Block, Chicago, Ill.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

Roofing Metal—
 (See Corrugated Iron.)

Roofing Plates—
 (See Sheets, Roofing.)

Roofing, Prepared—

Asphalt Ready Roofing Co., 125 Water St., New York.

Garry Iron & Steel Co., Cleveland, O.

National Roofing Co., Tonawanda, N. Y.

Stowell Mfg. Co., Jersey City, N. J.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

Roofing, Sand Surfaced—

National Roofing Co., Tonawanda, N. Y.

Roofing, Tin—

Merchant & Evans Co., Philadelphia, Pa.

Roofs—

(See Buildings and Bridges.)

Root, Tobacco, Cutters—

(See Cutters, Tobacco, Root.)

Rope, Bale—

American Mfg. Co., 65 Wall St., N. Y.

New York Cordage Co., 83-85 Wall St., N. Y.

Plymouth Cordage Co., North Plymouth, Mass.

Rope, Braided Cotton.**Line, &c.**

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

Samson Cordage Works, Boston, Mass.

Silver Lake Co., Boston, Mass.

Rope Clamps, Clips, &c.—

(See Clamps, Clips, &c.)

Rope Coating Filler—

(See Coating, Filler.)

Rope, Cotton—

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

Rope, Hay—

American Mfg. Co., 63 Wall St., N. Y.

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

New York Cordage Co., 83-85 Wall St., N. Y.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

Plymouth Cordage Co., North Plymouth, Mass.

Rope, Hemp, Tarred—

American Mfg. Co., 65 Wall St., N. Y.

New York Cordage Co., 83-85 Wall St., N. Y.

Plymouth Cordage Co., North Plymouth, Mass.

Rope, Hide—

American Mfg. Co., 63 Wall St., N. Y.

New York Cordage Co., 83-85 Wall St., N. Y.

Plymouth Cordage Co., North Plymouth, Mass.

Rope, Hoisting—

American Mfg. Co., 65 Wall St., N. Y.

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

New York Cordage Co., 83-85 Wall St., N. Y.

Plymouth Cordage Co., North Plymouth, Mass.

Samson Cordage Works, Boston, Mass.

Waterbury Co., 69 South St., N. Y.

Rope, Hoisting, Phosphor-Bronze—

Colburn Machine Tool Co., Franklin, Pa.

National Wire Corporation, New Haven, Ct.

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

American Mfg. Co., 65 Wall St., N. Y.

Plymouth Cordage Co., North Plymouth, Mass.

Samson Cordage Works, Boston, Mass.**Rope, Manila, Sisal, Jute and Hemp—**

American Mfg. Co., 65 Wall St., N. Y.

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

New York Cordage Co., 83-85 Wall St., N. Y.

Plymouth Cordage Co., North Plymouth, Mass.

Waterbury Co., 69 South St., N. Y.

Rope, Tiller, Phosphor-Bronze—

National Wire Corporation, New Haven, Ct.

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Rope Transmission—

American Mfg. Co., 63 Wall St., N. Y.

Broderick & Bascom Rope Co., St. Louis.

Case Mfg. Co., Columbus, O.

A. Leschen & Sons Rope Co., St. Louis.

National Wire Corporation, New Haven, Ct.

New York Cordage Co., 83-85 Wall St., N. Y.

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Plymouth Cordage Co., North Plymouth, Mass.

Samson Cordage Works, Boston, Mass.

Waterbury Co., 69 South St., N. Y.

Rope, Wire—

Broderick & Bascom Rope Co., St. Louis.

Hazard Mfg. Co., Wilkesbarre, Pa.

A. Leschen & Sons Rope Co., St. Louis.

National Wire Corporation, New Haven, Ct.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Trenton Iron Co., Trenton, N. J.

Waterbury Co., 69 South St., N. Y.

Williamsport Wire Rope Co., Williamsport, Pa.

Rope, Yacht—

American Mfg. Co., 65 Wall St., N. Y.

Plymouth Cordage Co., North Plymouth, Mass.

Ropes, Hammock and Hitching—

American Mfg. Co., 63 Wall St., N. Y.

Covert Mfg. Co., Troy, N. Y.

New York Cordage Co., 83-85 Wall St., N. Y.

I. E. Palmer, Middletown, Ct.

Samson Cordage Works, Boston, Mass.

Ropes, Locomotive Switching—

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

National Wire Corporation, New Haven, Ct.

Ropeways, Wire—

(See Tramways, Wire Rope.)

Rosettes—

(See Architectural Sheet Metal Work.)

Rosettes, Harness—

Enterprise Mfg. Co., Akron, Ill.

Rosettes, Iron—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

John W. Clark, Albany, N. Y.

Chas. G. Eckstein, 249 Centre St., N. Y.

Keystone Drop Forge Works, Chester, Pa.

Rosettes, Wooden—

E. B. Estes & Sons, 45-47 John St., N. Y.

Rounders, Saw—
(See Saws, Guides and Rounders.)

Rounds, Ladder—
Sandusky Tool Co., Sandusky, O.

Rowlocks—
A. S. Morse Co., Boston, Mass.
W. & J. Tiebout, 118 Chambers St., N. Y.

Rub Irons— (See Irons, Rub.)
Rubber and Paper Insulated Wire— (See Wires, Electrical.)

Rubber Belting, Cement, &c.— (See Belting, Cement, &c.)

Rubber Covered Wire— (See Wire, Electrical.)

Rubber Goods, Mechanical—
H. O. Canfield Co., Bridgeport, Ct.
New York Belting & Packing Co., 91-93 Chambers St., New York.
Republic Belting & Supply Co., Cleveland, O.

Rubber Mill Machinery—
Aiton Machine Co., 126 Liberty St., N. Y.
Birmingham Iron Foundry, Derby, Ct.
Farrel Fdy. & Mach Co., Ansonia, Ct.
Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.

Rubber Rings— (See Gaskets and Rings, Rubber.)

Rubber Sheets, Vulcanized— (See Sheet Rubber, Vulcanized.)

Rubber Springs— (See Bumpers and Springs.)

Rubber Washing Machinery—
Aiton Machine Co., 126 Liberty St., N. Y.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Rubbing Beds—
Birmingham Iron Foundry, Derby, Ct.
Lehigh Foundry Co., Fullerton, Pa.
F. R. Patch Mfg. Co., Rutland, Vt.

Rubs, Emery— (See Emery Rubs for Foundry Use.)

Rudder Braces— (See Braces, Rudder.)

Rulers, Desk and School—
Chapin-Stephens Co., Pine Meadow, Ct.
E. B. Estes & Sons, 45-47 John St., N. Y.
Lufkin Rule Co., Saginaw, Mich.
L. S. Starrett Co., Athol, Mass.
Upon Nut Co., Cleveland, O.

Rules, Blacksmiths—
Lufkin Rule Co., Saginaw, Mich.
L. S. Starrett Co., Athol, Mass.

Rules, Board and Log—
Chapin-Stephens Co., Pine Meadow, Ct.
Lufkin Rule Co., Saginaw, Mich.

Rules, Boxwood—
Brown & Sharpe Mfg. Co., Providence, R. I.
Chapin-Stephens Co., Pine Meadow, Ct.
C. E. Jennings & Co., 42 Murray St., New York.

Keuffel & Esser Co., 127 Fulton St., N. Y.
Stanley Rule & Level Co., New Britain, Ct.
Upon Nut Co., Cleveland, O.

Rules, Combination—
Chapin-Stephens Co., Pine Meadow, Ct.
Keuffel & Esser Co., 127 Fulton St., N. Y.

Rules, Draughtsmen's—
L. S. Starrett Co., Athol, Mass.

Rules, Flexible Folding—
Chapin-Stephens Co., Pine Meadow, Ct.
Schuchardt & Schutte, 136 Liberty St., New York.

L. S. Starrett, Athol, Mass.

Rules, Hook—
L. S. Starrett Co., Athol, Mass.

Rules, Ivory—
Chapin-Stephens Co., Pine Meadow, Ct.
C. E. Jennings & Co., 42 Murray St., New York.

Stanley Rule & Level Co., New Britain, Ct.
Upon Nut Co., Cleveland, O.

Rules, Keyseat—
L. S. Starrett Co., Athol, Mass.

Rules, Log, Calliper—
Humphrey Machine Co., Keene, N. H.

Rules, Machinists—
Athol Machine Co., Athol, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Henry Disston & Sons, Philadelphia, Pa.
C. E. Jennings & Co., 42 Murray St., New York.

Lufkin Rule Co., Saginaw, Mich.
Massachusetts Tool Co., Greenfield, Mass.
L. S. Starrett Co., Athol, Mass.

Rules, Metric Steel—
Brown & Sharpe Mfg. Co., Providence, R. I.

Keuffel & Esser Co., 127 Fulton St., N. Y.
Lufkin Rule Co., Saginaw, Mich.
L. S. Starrett Co., Athol, Mass.

Rules, Scale and Shrinkage—
Billings & Spencer Co., Hartford, Ct.
Brown & Sharpe Mfg. Co., Providence, R. I.

Chapin-Stephens Co., Pine Meadow, Ct.
Keuffel & Esser Co., 127 Fulton St., N. Y.
Lufkin Rule Co., Saginaw, Mich.
Stanley Rule & Level Co., New Britain, Ct.

L. S. Starrett Co., Athol, Mass.

Rules, Slide—
Chapin-Stephens Co., Pine Meadow, Ct.
Keuffel & Esser Co., 127 Fulton St., N. Y.
Schuchardt & Schutte, 136 Liberty St., N. Y.
L. S. Starrett Co., Athol, Mass.

Rules, Steel—
Athol Machine Co., Athol, Mass.
Billings & Spencer Co., Hartford, Ct.
Brown & Sharpe Mfg. Co., Providence, R. I.

Henry Disston & Sons, Philadelphia, Pa.
Keuffel & Esser Co., 127 Fulton St., N. Y.
Lufkin Rule Co., Saginaw, Mich.
Massachusetts Tool Co., Greenfield, Mass.

L. S. Starrett Co., Athol, Mass.
Rules, Steel Calliper—
Athol Machine Co., Athol, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.

L. S. Starrett Co., Athol, Mass.

Rules, Timers—
Lufkin Rule Co., Saginaw, Mich.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Rules, Zig Zag—
Schuchardt & Schutte, 136 Liberty St., New York.

Stanley Rule & Level Co., New Britain, Ct.

Rumblers— (See Barrels, Tumbling.)

Runs, House and Car— (See Ice Harvesting Tools.)

Rust Repeller—
Marlin Fire Arms Co., New Haven, Ct.

S and S Hooks—
(See Hooks, S and S.)

Sad Iron Handles, Heaters, Stands.
(See Handles, Heaters, Stands.)

Sad Irons.
(See Irons, Sad, Laundry, &c.)

Saddlers' Hammers.
(See Hammers, Saddlers' and Upholsters.)

Saddlery Hardware.
Covert Mfg. Co., Troy, N. Y.
Enterprise Mfg. Co., Akron, O.
Kilborn & Bishop Co., New Haven, Ct.

Saddles, Bicycle.
Sturges & Burn Mfg. Co., Chicago, Ill.

Saddles, Extension.
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Safe Works Machinery.
Hilles & Jones Co., Wilmington, Del.
Niles-Bement-Pond Co., 111 Broadway, New York.

Safes and Vaults, Manganes Steel.
Taylor Iron & Steel Co., High Bridge, N. J.

Safes, Fire and Burglar Proof.
Chicago Scale Co., 222-236 Jackson Boulevard, Chicago, Ill.

Safes, Match.
Taylor Iron & Steel Co., High Bridge, N. J.

Safes, Match.
Columbia Grey Iron Co., Columbia, Pa.
Fanner Mfg. Co., Cleveland, O.

Safes, Match.
New York Stamping Co., Brooklyn, N. Y.
Charles Parker Co., Meriden, Ct.

Safes, Match.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Safes, Match.
Reading Hardware Co., Reading, Pa.
Republic Metalware Co., Buffalo, N. Y.

Safes, Match.
Russell & Erwin Mfg. Co., 43-41 Chambers St., New York.

Safes, Match.
Scovill Mfg. Co., Waterbury, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.

Safes, Match.
A. C. Williams, Ravenna, O.

Safes, Match.
W. J. Clark Co., Salem, O.

Safes, Match.
Howard & Morse, 45 Fulton St., N. Y.

Safes, Match.
Safety Chains, Pins, Valves.
(See chains, Pins, Valves.)

Sail Makers' Palms.
(See Palms, Sailors' and Sail Makers'.)

Salad Casters.
(See Casters, Silver Plated.)

Salad Servers.
(See Servers, Salad.)

Salamanders.
(See Stoves, Plasterers'.)

Sallinometers.
(See Stoves, Plasterers'.)

Salinometers.
American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Salt Machinery.
Warsaw Elevator Co., Warsaw, N. Y.

Salts.
(See Peppers and Salts, Silver Plated.)

Sample Holders.
(See Holders, Sample.)

Sand and Mud Hub Bands.
(See Bands, Vehicle Wheel, Sand and Mud.)

Sand Blast Machinery.
Ingersoll Rand Co., 11 Broadway, N. Y.

Sand Blast Machinery.
Obermayer Co., Cincinnati, O.

Sand Blast Machinery.
W. F. Watson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Sand Fire.
Edgar T. Ward & Sons, Boston, Mass.

Sand Fire.
E. M. Hadrich, 311 1-2 Walnut St., Philadelphia, Pa.

Sand Fire.
Henry Maurer & Son, 420 E. 23d St., Troy, N. Y.

Sand Fire.
S. Obermayer Co., Cincinnati, O.

Sand Fire.
Ostrander Fire Brick Co., Troy, N. Y.

Sand Fire.
J. W. Faxon Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Sand Fire.
Presbrey Fire Brick Works, Taunton, Mass.

Sand Fire.
J. D. Smith Foundry Supply Co., Cleveland, O.

Sand Fire.
M. D. Valentine & Bro. Co., Woodbridge, N. J.

Sand Mixing Machines.
(See Mixing Machines, Rolls, Sifters.)

Sand, Molding.
Edward J. Etting, Harrison Bldg., Philadelphia, Pa.

Sand, Molding.
Newport Sand Bank Co., Newport, Ky.

Sand, Molding.
S. Obermayer Co., Cincinnati, O.

Sandpaper.
(See Paper, Sand, Garnet, &c.)

Sandstone.
Pike Mfg. Co., Pike, N. H.

Sanitary Specialties.
(See Bathroom and Toilet Specialties.)

Sap Pails, Spouts.
(See Spouts, Sap.)

Sash Balances, Centers, &c.
(See Balances, Centers, &c.)

Sash Cord, Ribbon and Wire, Attachments.
(See Irons, Sash Cord, Ribbon and Wire.)

Sash Hot Bed.
Lord & Burnham Co., Irvington-on-Hudson, N. Y.

Sash, Iron.
(See Iron Work, Builders'.)

Sash Operating Machinery.
(See Openers, Sash and Window.)

Saturating Machines for Tar Paper.
Farrel Fdy. & Mach. Co., Ansonia, Ct.

Saucer Holders.
(See Ware, Copper.)

Saucer Holders.
(See Holders.)

Sausage Stuffers.
(See Stuffers, Sausage.)

Savings Banks, Toy.
(See Toy Savings Banks.)

Saw Arbors, Bucks, &c.
(See Arbors, Bucks, &c.)

Saw Blades, Plain and Corrugated.
(See Blades, Plain and Corrugated Saw.)

Saw Dust, Boxwood.
Chapin-Stephens Co., Pine Meadow, Ct.

Saw Dust Carriers.
Samuel Winslow Skate Mfg. Co., Worcester, Mass.

Saw Filers.
Buhl Malleable Co., Detroit, Mich.

Saw Grinders and Rounders.
(See Filers, Saw.)

Saw Guides, Band.
(See Guides, Band Saw.)

Saw Handles, Crosscut.
(See Handles, Crosscut Saw.)

Saw Making Machinery—
Hess Machine Works, 25th and Callow-
hill Sts., Philadelphia, Pa.

Saw Mill Dogs, Trucks—
(See Dogs, Trucks.)

Saw Mill Machinery—
Badger State Machine Co., Janesville,
Wis.

Broderick & Bascom Rope Co., St. Louis.
Defiance Machine Works, Defiance, O.
Humphrey Machine Co., Keene, N. H.
Lane Mfg. Co., Montpelier, Vt.
A. Leschen & Sons Rope Co., St. Louis.
Link-Belt Engineering Co., Nicetown,
Philadelphia, Pa.

Myrick Machine Co., Olean, N. Y.
Louis E. Rechin & Bro., Cincinnati, O.
Sole Steam Feed Works, Meridian, Miss.
Wickes Bros., Saginaw, Mich.

Saw Mills, Circular—
E. C. Atkins & Co., Indianapolis, Ind.
Barnes Tool Co., New Haven, Ct.
W. F. & John Barnes Co., Rockford, Ill.
A. Buch's Sons Co., Elizabethtown, Pa.
S. Freeman & Sons Mfg. Co., Racine,
Wis.

Peter Gerlach Co., Cleveland, O.
Humphrey Machine Co., Keene, N. H.
R. E. Kidder, Worcester, Mass.
Lane Mfg. Co., Montpelier, Vt.
J. M. Marston & Co., Boston, Mass.
Lewis E. Rechin & Bro., Seneca Falls,
N. Y.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.
Wickes Bros., Saginaw, Mich.

Saw Sets—
(See Sets, Saw.)

**Saw Setting and Filing
Machines, Band—**
(See Setting and Filing Machines, Band
Saw.)

Saw Tables, Universal—
Colburn Machine Tool Co., Franklin, Pa.
Crescent Machine Co., Leetonia, O.
Oliver Machinery Co., Grand Rapids,
Mich.

Saw Tooth Gauges—
(See Gauges, Saw Tooth.)

Sawing Machines, Band—
Crescent Machine Co., Leetonia, O.
Humphrey Machine Co., Keene, N. H.
Oliver Machinery Co., Grand Rapids,
Mich.

Louis E. Rechin & Bro., Cincinnati, O.
Wickes Bros., Saginaw, Mich.

**Sawing Machines, Electro
and Linotype—**

R. E. Kidder, Worcester, Mass.
Sawing Machines, Metal—
Armstrong Bros. Tool Co., 617 Austin
Ave., Chicago, Ill.
Bethlehem Foundry & Machine Co.,
South Bethlehem, Pa.

Billings & Spencer Co., Hartford, Ct.
John T. Burr & Sons, Brooklyn, N. Y.
Espan-Lucas Machine Works, Broad and
Noble Sts., Philadelphia, Pa.
Grant Mfg. & Machine Co., Bridgeport,
Ct.

Newton Machine Tool Works, 23d & Vine
Sts., Philadelphia, Pa.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Nutter, Barnes & Co., Boston, Mass.
Pratt & Whitney Co., Hartford, Ct.
Quincy, Manchester, Sargent Co., Old
Colony Bldg., Chicago, Ill.

United Engineering & Foundry Co.,
Pittsburgh, Pa.

Vandyck, Churchill Co., 8 Dey St., N. Y.
**Sawing Machines, Metal
Band—**

Newton Machine Tool Works, 23d & Vine
Sts., Philadelphia, Pa.
H. G. Thompson & Son Co., New Haven,
Ct.

**Sawing Machines, Metal
Jig—**

H. G. Thompson & Son Co., New Haven,
Ct.

**Sawing Machines, Pneu-
matic Log—**
Chicago Pneumatic Tool Co., Fisher
Bldg., Chicago, Ill.

**Sawing Machines, Slate and
Stone—**

F. R. Patch Mfg. Co., Rutland, Vt.
Sawing Machines, Wood—
Badger State Machine Co., Janesville,
Wis.

Colburn Machine Tool Co., Franklin, Pa.
Greenlee Bros. & Co., Rockford, Ill.
R. E. Kidder, Worcester, Mass.
Lane Mfg. Co., Montpelier, Vt.
Wickes Bros., Saginaw, Mich.

Saws and Bucks, Boys—
Henry Disston & Sons, Philadelphia, Pa.

National Saw Co., Newark, N. J.
**Saws and Frames, Turn-
ing—**

Chapin-Stephens Co., Pine Meadow, Ct.
Henry Disston & Sons, Philadelphia, Pa.

Saws, Band—

E. C. Atkins & Co., Indianapolis, Ind.
Barnes Tool Co., New Haven, Ct.
Bethlehem Foundry & Machine Co.,
South Bethlehem, Pa.
Carlin Machinery & Supply Co., Inc.,
Allegheny, Pa.

Crescent Machine Co., Leetonia, O.
Defiance Machine Works, Defiance, O.
Henry Disston & Sons, Philadelphia, Pa.
Greaves, Khusman & Co., Cincinnati, O.
Humphrey Machine Co., Keene, N. H.
J. M. Marston & Co., Boston, Mass.
National Saw Co., Newark, N. J.
Silver Mfg. Co., Salem, O.
Simonds Mfg. Co., Fitchburg, Mass.
H. G. Thompson & Son Co., New Haven,
Ct.

Saws, Band, for Metal—

E. C. Atkins & Co., Indianapolis, Ind.
Henry Disston & Sons, Philadelphia, Pa.
Pratt & Whitney Co., Hartford, Ct.
H. G. Thompson & Son Co., New Haven,
Ct.

Saws, Bar Cold—

Espan-Lucas Machine Works, Broad and
Noble Sts., Philadelphia, Pa.
Quincy, Manchester, Sargent Co., Old
Colony Bldg., Chicago, Ill.

Saws, Bench Hack—

Goodell-Pratt Co., Greenfield, Mass.

**Saws, Butcher, Kitchen,
&c.—**

E. C. Atkins & Co., Indianapolis, Ind.
Geo. H. Bishop & Co., Cincinnati, O.
John Chatillon & Sons, 85 Cliff St., N. Y.
Diamond Saw & Stamping Works, Buf-
falo, N. Y.
Henry Disston & Sons, Philadelphia, Pa.
Chas. Forschner & Sons, 206 E. 12th St.,
New York.

Goodell-Pratt Co., Greenfield, Mass.

- C. E. Jennings & Co., 42 Murray St., New York.
Massachusetts Saw Works, Chicopee, Mass.
 Millers Falls Co., 23 Warren St., N. Y.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.
- Saws, Circular—**
 Henry Disston & Sons, Philadelphia, Pa.
 Goodell-Pratt Co., Greenfield, Mass.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.
- Saws, Combination or Key-hole—**
 E. C. Atkins & Co., Indianapolis, Ind.
 Henry Disston & Sons, Philadelphia, Pa.
- Saws, Compass or Keyhole—**
 E. C. Atkins & Co., Indianapolis, Ind.
 Geo. H. Bishop & Co., Cincinnati, O.
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
 Henry Disston & Sons, Philadelphia, Pa.
 C. E. Jennings & Co., 42 Murray St., New York.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.
 Tower & Lyon Co., 95 Chambers St., New York.
- Saws, Coping—**
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
 Henry Disston & Sons, Philadelphia, Pa.
 C. E. Jennings & Co., 42 Murray St., New York.
Massachusetts Saw Works, Chicopee, Mass.
- Saws, Cylinder—**
 E. C. Atkins & Co., Indianapolis, Ind.
 Henry Disston & Sons, Philadelphia, Pa.
- Saws, Dehorning—**
 E. C. Atkins & Co., Indianapolis, Ind.
 W. F. & John Barnes Co., Rockford, Ill.
 Geo. H. Bishop & Co., Cincinnati, O.
 Henry Disston & Sons, Philadelphia, Pa.
 Millers Falls Co., 23 Warren St., N. Y.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.
- Saws, Diamond Stone—**
 Farrel Foundry & Mach. Co., Ansonia, Ct.
- Saws, Fret—**
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- Saws, Gauge—**
 Henry Disston & Sons, Philadelphia, Pa.
- Saws, Grooving—**
 E. C. Atkins & Co., Indianapolis, Ind.
 Henry Disston & Sons, Philadelphia, Pa.
 J. M. Marston & Co., Boston, Mass.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.
- Saws, Hack, Blades and Frames—**
 Athol Machine Co., Athol, Mass.
 Arcade Mfg. Co., Freeport, Ill.
 E. C. Atkins & Co., Indianapolis, Ind.
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
 Diamond Saw & Stamping Works, Buffalo, N. Y.
 Henry Disston & Sons, Philadelphia, Pa.
 Fairbanks Co., 416 Broome St., New York.
 Alfred Field & Co., 93 Chambers St., N. Y.
 Goodell-Pratt Co., Greenfield, Mass.
 C. E. Jennings & Co., 42 Murray St., New York.
Massachusetts Saw Works, Chicopee, Mass.
- Millers Falls Co., 23 Warren St., N. Y.
 National Saw Co., Newark, N. J.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Robertson Mfg. Co., Buffalo, N. Y.
 Smith & Hemenway Co., 106-110 Duane St., New York.
 L. S. Starrett Co., Athol, Mass.
 H. G. Thompson & Son Co., New Haven, Ct.
 Tower & Lyon Co., 95 Chambers St., N. Y.
 Union Hardware Co., Torrington, Ct.
 West Haven Mfg. Co., New Haven, Ct.
- Saws, Hand, Panel, Back, &c.—**
 E. C. Atkins & Co., Indianapolis, Ind.
 Geo. H. Bishop & Co., Cincinnati, O.
 Henry Disston & Sons, Philadelphia, Pa.
 C. E. Jennings & Co., 42 Murray St., New York.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.
- Saws, Hot Metal—**
 E. C. Atkins & Co., Indianapolis, Ind.
 Billings & Spencer Co., Hartford, Ct.
 Henry Disston & Sons, Philadelphia, Pa.
 Lewis Foundry & Machine Co., Pittsburgh, Pa.
 National Saw Co., Newark, N. J.
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.
- Saws, Ice—**
 E. C. Atkins & Co., Indianapolis, Ind.
 Geo. H. Bishop & Co., Cincinnati, O.
 Henry Disston & Sons, Philadelphia, Pa.
 Peter Gerlach Co., Cleveland, O.
 Gifford-Wood Co., Arlington, Mass.
 C. E. Jennings & Co., 42 Murray St., New York.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.
- Saws, Inserted Tooth for Cold Cutting—**
 Tindel-Morris Co., Eddystone, Pa.
- Saws, Jewelers—**
 Millers Falls Co., 23 Warren St., N. Y.
- Saws, Jig—**
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- Saws, Metal Cutting—**
 Seneca Falls Mfg. Co., Seneca Falls, N. Y.
- Saws, Metal Cutting—**
 E. C. Atkins & Co., Indianapolis, Ind.
 Barnes Tool Co., New Haven, Ct.
 Henry Disston & Sons, Philadelphia, Pa.
 Espen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.
 Lewis Foundry & Machine Co., Pittsburgh, Pa.
 National Saw Co., Newark, N. J.
 Robertson Mfg. Co., Buffalo, N. Y.
 Simonds Mfg. Co., Fitchburg, Mass.
- Saws, Mill, Muley, Crosscut, Drag, Gang Pit, Whip, &c.—**
 E. C. Atkins & Co., Indianapolis, Ind.
 Geo. H. Bishop & Co., Cincinnati, O.
 Henry Disston & Sons, Philadelphia, Pa.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.
- Saws, Plumbers—**
 E. C. Atkins & Co., Indianapolis, Ind.
 Henry Disston & Sons, Philadelphia, Pa.
 C. E. Jennings & Co., 42 Murray St., New York.
 H. Mueller Mfg. Co., Decatur, Ill.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.

Saws, Pole—

B. Freeman & Sons Mfg. Co., Racine, Wis.

Saws, Plumbers', Hollow Mill—

West Haven Mfg. Co., New Haven, Ct.

Saws, Power, Hack—

E. C. Atkins & Co., Indianapolis, Ind.

Jas. Clark, Jr. & Co., Louisville, Ky.

Diamond Saw & Stamping Works, Buffalo, N. Y.

Henry Diston & Sons, Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.

Goodell-Pratt Co., Greenfield, Mass.

Hoefer Mfg. Co., Freeport, Ill.

Millers Falls Co., 28 Warren St., N. Y.

National Saw Co., Newark, N. J.

Niles-Bement-Pond Co., 111 Broadway, New York.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Robertson Mfg. Co., Buffalo, N. Y.

L. S. Starrett Co., Athol, Mass.

H. G. Thompson & Son Co., New Haven, Ct.

West Haven Mfg. Co., New Haven, Ct.

Western Tool & Mfg. Co., Springfield, O.

Wright Wire Co., Worcester, Mass.

Saws, Pruning—

E. C. Atkins & Co., Indianapolis, Ind.

Geo. H. Bishop & Co., Cincinnati, O.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Henry Diston & Sons, Philadelphia, Pa.

C. E. Jennings & Co., 42 Murray St., N. Y.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

Saws, Rail—

Espen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.

Industrial Works, Bay City, Mich.

Saws, Rift—

E. C. Atkins & Co., Indianapolis, Ind.

Henry Diston & Sons, Philadelphia, Pa.

Simonds Mfg. Co., Fitchburg, Mass.

Saws, Scroll, and Scroll Saw Blades—

E. C. Atkins & Co., Indianapolis, Ind.

W. F. & John Barnes Co., Rockford, Ill.

Henry Diston & Sons, Philadelphia, Pa.

Greaves, Klusman & Co., Cincinnati, O.

Millers Falls Co., 28 Warren St., N. Y.

National Saw Co., Newark, N. J.

Louis E. Rechin & Bro., Cincinnati, O.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Simonds Mfg. Co., Fitchburg, Mass.

Saws, Segment or Veneering—

E. C. Atkins & Co., Indianapolis, Ind.

Henry Diston & Sons, Philadelphia, Pa.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

Saws, Slitting—

E. C. Atkins & Co., Indianapolis, Ind.

Henry Diston & Sons, Philadelphia, Pa.

Wm. G. Le Count, So. Norwalk, Ct.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.

Standard Tool Co., Cleveland, O.

Saws, Slitting, Metal—

E. C. Atkins & Co., Indianapolis, Ind.

Brown & Sharpe Mfg. Co., Providence, R. I.

Henry Diston & Sons, Philadelphia, Pa.

Wm. G. Le Count, So. Norwalk, Ct.

Pratt & Whitney Co., Hartford, Ct.

Union Twist Drill Co., Athol, Mass.

Saws, Stone—

Henry Diston & Sons, Philadelphia, Pa.

Hendrick Mfg. Co., Carbondale, Pa.

Saws, Swing, Cut Off—

Greaves, Klusman & Co., Cincinnati, O.

Lane Mfg. Co., Montpelier, Vt.

Oliver Machinery Co., Grand Rapids, Mich.

Saws, Tube—

Henry Diston & Sons, Philadelphia, Pa.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Saws, Turning—

(See Webs, Turning, Felloe, &c.)

Saws, Wood, and Wood Saw Blades—

C. C. Atkins & Co., Indianapolis, Ind.

Geo. H. Bishop & Co., Cincinnati, O.

Henry Diston & Sons, Philadelphia, Pa.

C. E. Jennings & Co., 42 Murray St., N. Y.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

Scale Attachments, Recording, Registering, &c.—

Fairbanks Co., 416 Broome St., New York.

Standard Scale & Supply Co., Pittsburgh.

Scale Beams—

John Chatillon & Sons, 85 Cliff St., N. Y.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.

Chas. Forchner & Sons, 296 E. 19th St., New York.

Osgood Scale Co., Binghamton, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Scalers and Measures, Steel—

Est. of John Dickinson, 64 Nassau St., New York.

Scalers, Fish—

John Chatillon & Sons, 85 Cliff St., N. Y.

Enterprise Mfg. Co., Akron, O.

Fairbanks Co., 416 Broome St., New York.

Chas. Forchner & Sons, 296 E. 19th St., New York.

Landers, Frary & Clark, New Britain, Ct.

Reading Hardware Co., Reading, Pa.

Susquehanna Casting Co., Wrightsville, Pa.

A. C. Williams, Ravenna, O.

Scales, Abattoir and Butcher—

John Chatillon & Sons, 85 Cliff St., N. Y.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Landers, Frary & Clark, New Britain, Ct.

Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Army and Navy—

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Assay—

(See Assay Balances and Scales.)

Scales, Bathroom—

John Chatillon & Sons, 85 Cliff St., N. Y.

Fairbanks Co., 416 Broome St., N. Y.

Lowell Scale Co., Lowell, Mass.

Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Beer—

Chas. Forchner & Sons, 296 E. 19th St., New York.

Scales, Board—
Chas. Forschner & Sons, 206 E. 19th St., New York.

Scales, Candy—
John Chatillon & Sons, 85 Cliff St., N. Y.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.
Fairbanks Co., 416 Broome St., N. Y.
Chas. Forschner & Sons, 206 E. 19th St., New York.

Landers, Frary & Clark, New Britain, Ct.
Osgood Scale Co., Binghamton, N. Y.
I. S. Spencer's Sons, Guilford, Ct.
Standard Scale & Supply Co., Pittsburgh.

Scales, Cement Testing—
Fairbanks Co., 416 Broome St., N. Y.

Scales, Cheese—
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.
Lowell Scale Co., Lowell, Mass.
Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Coal Mine and Tipple—

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Computing—
Fairbanks Co., 416 Broome St., New York.

Scales, Cotton and Wool—
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Counter and Grocers—

John Chatillon & Sons, 85 Cliff St., N. Y.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Chas. Forschner & Sons, 206 E. 19th St., New York.

Landers, Frary & Clark, New Britain, Ct.

Osgood Scale Co., Binghamton, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

I. S. Spencer's Sons, Guilford, Ct.

Standard Scale & Supply Co., Pittsburgh.

Scales, Dairy—
(See Scales, Cheese.)

Scales, Depot—
Standard Scale & Supply Co., Pittsburgh.

Scales, Dormant, Warehouse—
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Lowell Scale Co., Lowell, Mass.

Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Draftsman's—
Brown & Sharpe Mfg. Co., Providence, R. I.

Keuffel & Esser Co., 127 Fulton St., N. Y.

L. S. Starrett Co., Athol, Mass.

Scales, Express Package—
Standard Scale & Supply Co., Pittsburgh.

Scales, Family—
American Cutlery Co., Chicago, Ill.

John Chatillon & Sons, 85 Cliff St., N. Y.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.
Chas. Forschner & Sons, 206 E. 19th St., New York.

Landers, Frary & Clark, New Britain, Ct.

Lowell Scale Co., Lowell, Mass.

North Bros. Mfg. Co., Philadelphia, Pa.

Osgood Scale Co., Binghamton, N. Y.

I. S. Spencer's Sons, Guilford, Ct.

Standard Scale & Supply Co., Pittsburgh.

Scales, Fish—
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Chas. Forschner & Sons, 206 E. 19th St., New York.

Landers, Frary & Clark, New Britain, Ct.

Lowell Scale Co., Lowell, Mass.

Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

Wrightsville Hardware Co., Wrightsville, Pa.

Scales, Furnace Charging and Foundry—

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Glass Works—
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Graduated—
Brown & Sharpe Mfg. Co., Providence, R. I.

Fairbanks Co., 416 Broome St., New York.

Keuffel & Esser Co., 127 Fulton St., N. Y.

L. S. Starrett Co., Athol, Mass.

Scales, Grain and Elevator—
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Lowell Scale Co., Lowell, Mass.

Osgood Scale Co., Binghamton, N. Y.

Pratt & Whitney Co., Hartford, Ct.

Standard Scale & Supply Co., Pittsburgh.

Scales, Hanging Hopper Beam—
Fairbanks Co., 416 Broome St., N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Hopper—
Standard Scale & Supply Co., Pittsburgh.

Scales, Hot Bed, Disappearing—
Standard Scale & Supply Co., Pittsburgh.

Scales, Ice—
John Chatillon & Sons, 85 Cliff St., N. Y.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Chas. Forschner & Sons, 206 E. 19th St., New York.

Gifford-Wood Co., Arlington, Mass.

Landers, Frary & Clark, New Britain, Ct.

Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Industrial Railway—
Standard Scale & Supply Co., Pittsburgh.

Scales, Larry—
Standard Scale & Supply Co., Pittsburgh.

Scales, Leather Inspectors—
John Chatillon & Sons, 85 Cliff St., N. Y.

Fairbanks Co., 416 Broome St., New York.

Chas. Forschner & Sons, 206 E. 19th St., New York.

Scales, Letter—
Fairbanks Co., 416 Broome St., New York.
Osgood Scale Co., Binghamton, N. Y.
Standard Scale & Supply Co., Pittsburgh.

Scales, Lifting—
John Chatillon & Sons, 85 Cliff St., N. Y.
Fairbanks Co., 416 Broome St., New York.

Scales, Moisture—
Fairbanks Co., 416 Broome St., N. Y.

Scales, Ore Bucket—
Standard Scale & Supply Co., Pittsburgh.

Scales, Ore, Metal and Pig Iron—

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Lowell Scale Co., Lowell, Mass.

Standard Scale & Supply Co., Pittsburgh.

Scales, Personal—
John Chatillon & Sons, 85 Cliff St., N. Y.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Lowell Scale Co., Lowell, Mass.

Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Platform—
John Chatillon & Sons, 85 Cliff St., N. Y.
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

C. W. Hunt Co., West New Brighton, N. Y.

Lowell Scale Co., Lowell, Mass.

Monarch Grubber Co., Binghamton, N. Y.

Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Postal—
John Chatillon & Sons, 85 Cliff St., N. Y.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Chas. Forschner & Sons, 206 E. 19th St., New York.

International Silver Co., 9-13 Maiden Lane, New York.

Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Pottery Charging—
Standard Scale & Supply Co., Pittsburgh.

Scales, Professional—
John Chatillon & Sons, 85 Cliff St., N. Y.

Fairbanks Co., 416 Broome St., N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, R. R. Track—
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Reverse Acting Meat Beam—
John Chatillon & Sons, 85 Cliff St., N. Y.

Fairbanks Co., 416 Broome St., N. Y.

Chas. Forschner & Sons, 206 E. 19th St., New York.

Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Stock, Wagon and Hay—

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Suspension—
John Chatillon & Sons, 85 Cliff St., N. Y.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Tramway—
Standard Scale & Supply Co., Pittsburgh.

Scales, Traveling Crane—
Standard Scale & Supply Co., Pittsburgh.

Scales, Underwear—
Fairbanks Co., 416 Broome St., N. Y.

Scales, Union—
John Chatillon & Sons, 85 Cliff St., N. Y.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Yarn—
Brown & Sharpe Mfg. Co., Providence, R. I.

Fairbanks Co., 416 Broome St., N. Y.

Scaling Machines for Metal—
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Scarfing Machines, Plate—
Detrick & Harvey Machine Co., Baltimore, Md.

School Outfits, Manual Training—
Buffalo Forge Co., Buffalo, N. Y.

Hobbs Mfg. Co., Worcester, Mass.

F. E. Reed Co., Worcester, Mass.

Schools, Manual Training—
Washburn Shops, Worcester, Mass.

Scissors—
(See Shears and Scissors.)

Scissors, Bent—
Alfred Field & Co., 93 Chambers St., New York.

R. Heinsch's Sons Co., Newark, N. J.

Wiebusch & Hilger, 9-15 Murray St., New York.

Scissors, Button Hole—
Acme Shear Co., Bridgeport, Ct.

Atlas Shear Co., Bridgeport, Ct.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Crook & Carrier Mfg. Co., Elmira, N. Y.

Alfred Field & Co., 93 Chambers St., New York.

R. Heinsch's Sons Co., Newark, N. J.

A. L. Silberstein, 459-461 Broadway, N. Y.

Wiebusch & Hilger, 9-15 Murray St., New York.

Scissors, Embroidery—
Atlas Shear Co., Bridgeport, Ct.

Alfred Field & Co., 93 Chambers St., New York.

Wiebusch & Hilger, 9-15 Murray St., New York.

Scissors, Kindergarten—
Acme Shear Co., Bridgeport, Ct.

Atlas Shear Co., Bridgeport, Ct.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Scissors, Pocket—
Acme Shear Co., Bridgeport, Ct.

- Atlas Shear Co. Bridgeport, Ct.
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
 Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Alfred Field & Co., 93 Chambers St., New York.
 R. Heintsch's Sons Co., Newark, N. J.
 National Cutlery Co., Lehigh Ave., American & Third Sts., Philadelphia.
 Wiebusch & Hilger, 9-15 Murray St., New York.
- Scoop Forks, Vegetable.**
Beet, Potato, &c.
 Cleveland Lock Co., Cleveland, O.
- Scoop Nets.**
 (See Nets, Scoop.)
- Scoops.**
 John Chatillon & Sons, 85 Cliff St., N. Y.
 Chas. Forschner & Sons, 206 E. 19th St., New York.
- Scoops, Charging.**
 Avery Stamping Co., Cleveland, O.
 H. Mueller Mfg. Co., Decatur, Ill.
- Scoops, Cheese.**
 American Cutlery Co., Chicago, Ill.
- Scoops, Firing.**
 Avery Stamping Co., Cleveland, O.
- Scoops, Furnace, Pole Hole.**
 (See Shovels and Scoops.)
- Scoops, Grain, Coal, &c.**
 Avery Stamping Co., Cleveland, O.
 Hubbard & Co. Pittsburgh, Pa.
- Scoops, Wire, Fruit and Vegetable.**
 Cleveland Lock Co., Cleveland, O.
- Scoops, Wood.**
 John Sommer's Son, Newark, N. J.
- Scrap.**
 (See Material, Old.)
- Scraper and Buffer Steels.**
 (See Steels, Buffer and Scraper.)
- Scrapers and Cleaners, Pot and Kettle.**
 Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
- Scrapers, Bar.**
 Osborn Mfg. Co., Cleveland, O.
- Scrapers, Block.**
 L. S. Starrett Co., Athol, Mass.
- Scrapers, Boiler Flue.**
 (See Cleaners, Flue.)
- Scrapers, Box.**
 Chapin-Stephens Co., Pine Meadow, Ct.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Potter Mfg. Co., Geneva, O.
 Stanley Rule & Level Co., New Britain, Ct.
- Vaughan & Bushnell Mfg. Co., Chicago.**
- Scrapers, Butchers' Block.**
 John Chatillon & Sons, 85 Cliff St., N. Y.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.
 L. S. Starrett Co., Athol, Mass.
 Vaughan & Bushnell Mfg. Co., Chicago.
- Scrapers, Cabinet and Bench.**
 E. C. Atkins & Co., Indianapolis, Ind.
 Geo. H. Bishop & Co., Cincinnati, O.
 Henry Diston & Sons, Philadelphia, Pa.
 C. E. Jennings & Co., 42 Murray St., New York.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.
 Stanley Rule & Level Co., New Britain, Ct.
 L. S. Starrett Co., Athol, Mass.
- Scrapers, Ditching.**
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
- Scrapers, Floor.**
 Osborn Mfg. Co., Cleveland, O.
 L. S. Starrett Co., Athol, Mass.
 Vaughan & Bushnell Mfg. Co., Chicago.
- Scrapers, Flue.**
 (See Cleaners, Flue.)
- Scrapers, Foot.**
 Arcade Mfg. Co., Freeport, Ill.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Columbia Grey Iron Co., Columbia, Pa.
 Davis Mfg. Co., Milwaukee, Wis.
 Griffin Mfg. Co., Erie, Pa.
 National Mfg. Co., Sterling, Ill.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Pleuger & Henger Mfg. Co., St. Louis.
 Reading Hardware Co., Reading, Pa.
 Richards Mfg. Co., Aurora, Ill.
 Rock River Mfg. Co., Dixon, Ill.
 Root Bros. Co., Plymouth, O.
 Schreiber & Conchar Mfg. Co., Dubuque, Ia.
 A. C. Williams, Ravenna, O.
- Scrapers, Hog.**
 John Chatillon & Sons, 85 Cliff St., N. Y.
 W. J. Clark Co., Salem, O.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Vaughan & Bushnell Mfg. Co., Chicago.
- Scrapers, Ice.**
 (See Ice Harvesting Tools.)
- Scrapers, Kettle.**
 F. E. Kohler & Co., Canton, O.
 Wire Goods Co., Worcester, Mass.
- Scrapers, Machinists.**
 Henry Diston & Sons, Philadelphia, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 Nicholson File Co., Providence, R. I.
- Scrapers, Metal.**
 Kilborn & Bishop Co., New Haven, Ct.
- Scrapers, Plumbers.**
 Dame, Stoddard & Co., Boston, Mass.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Scrapers, Road.**
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
 Pittsburgh Industrial Iron Works, Pittsburgh, Pa.
- Scrapers, Sheet Metal.**
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
 Syracuse Chilled Plow Co., Syracuse, N. Y.
- Scrapers, Ship.**
 Kilborn & Bishop Co., New Haven, Ct.
- Scrapers, Shovel.**
 Arcade Mfg. Co., Freeport, Ill.
- Scrapers, Single or Double End.**
 Hubbard & Co., Pittsburgh, Pa.
- Scrapers, Veneer.**
 Stanley Rule & Level Co., New Britain, Ct.
- Scrapers, Walk and Street.**
 American Fork & Hoe Co., Cleveland, O.
 F. E. Kohler & Co., Canton, O.
 Pittsburgh Industrial Iron Works, Pittsburgh, Pa.

- Scrapers, Wall-**
Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
Henry Disston & Sons, Philadelphia, Pa.
C. E. Jennings & Co., 42 Murray St., New York
Kilborn & Bishop Co., New Haven, Ct.
F. E. Kohler & Co., Canton, O.
National Saw Co., Newark, N. J.
Potter Mfg. Co., Geneva, O.
Simonds Mfg. Co., Fitchburg, Mass.
Smith & Hemenway Co., 108-110 Duane St., New York
Wilkinson Shear & Cutlery Co., Reading, Pa.
- Scrapers, Wire-**
(See Knives, Electrician.)
- Scratch Awls, Gauges-**
(See Awls, Gauges.)
- Screen Bolts, Doors, &c.-**
(See Bolts, Doors, &c.)
- Screen, Wire Cloth-**
(See Cloth, Wire.)
- Screens, Cotton Seed Oil-**
Clinton Wire Cloth Co., Clinton, Mass.
Hendrick Mfg. Co., Carbondale, Pa.
Chas. Mundt & Sons, 441-447 Pearl St., New York
- Screens, Fire, Folding-**
S. M. Howes Co., Boston, Mass.
Murdock-Shaw Co., Boston, Mass.
- Screens, Mining-**
Clinton Wire Cloth Co., Clinton, Mass.
Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.
Chas. Mundt & Sons, 441-447 Pearl St., New York
- Screens, Radintor-**
Ludlow-Saylor Wire Co., St. Louis, Mo.
- Screens, Revolving-**
Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
Thomas Carlin's Sons, Allegheny, Pa.
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
Clinton Wire Cloth Co., Clinton, Mass.
Erdle Perforating Co., Rochester, N. Y.
Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.
Hendrick Mfg. Co., Carbondale, Pa.
Howard & Morse, 45 Fulton St., N. Y.
Interstate Engineering Co., Bedford, Ct.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.
Charles Mundt & Sons, 441-447 Pearl St., New York
Taylor Iron & Steel Co., High Bridge, N. J.
W. S. Tyler Co., Cleveland, O.
Wellman-Seaver-Morgan Co., Cleveland, O.
Wright Wire Co., Worcester, Mass.
- Screens, Sand and Coal, &c.-**
Buffalo Wire Works Co., Buffalo, N. Y.
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
Clinton Wire Cloth Co., Clinton, Mass.
Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
Erdle Perforating Co., Rochester, N. Y.
Estey Wire Works Co., 59 Fulton St., New York
- Gilbert & Bennett Mfg. Co., 277 Broadway, New York.
Glen Mfg. Co., Ellwood City, Pa.
Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.
Hendrick Mfg. Co., Carbondale, Pa.
Howard & Morse, 45 Fulton St., N. Y.
C. W. Hunt Co., West New Brighton, N. Y.
Interstate Engineering Co., Bedford, Ct.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Merritt & Co., 1024-1028 Ridge Ave., Philadelphia, Pa.
Michigan Wire Cloth Co., Detroit, Mich.
Charles Mundt & Sons, 441-447 Pearl St., New York
Osborn Mfg. Co., Cleveland, O.
Robins Conveying Belt Co., Park Row Bldg., New York
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
W. S. Tyler Co., Cleveland, O.
Wellman-Seaver-Morgan Co., Cleveland, O.
Wickwire Bros., Cortland, N. Y.
Wright Wire Co., Worcester, Mass.
- Screens, Shaking-**
Clinton Wire Cloth Co., Clinton, Mass.
Hendrick Mfg. Co., Carbondale, Pa.
Chas. Mundt & Sons, 441-447 Pearl St., New York
- Screens, Window-**
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
Porter Screen Mfg. Co., Burlington, Vt.
- Screens, Window, to Order-**
Phenix Mfg. Co., Milwaukee, Wis.
- Screens, Wooden-**
E. B. Estes & Sons, 45-47 John St., N. Y.
- Screw Cases-**
(See Cases, Screw and Bolt.)
- Screw Cutting Die Heads-**
(See Die Heads, Screw Cutting.)
- Screw Cutting Dies-**
(See Stocks, Taps and Dies.)
- Screw Driver Bits, Holders-**
(See Bits, Holders.)
- Screw Drivers-**
(See Drivers, Screw.)
- Screw Holder and Driver-**
(See Drivers, Screw and Holder.)
- Screw Hook Hinges-**
(See Hinges, Screw Hook or Strap and Eye.)
- Screw Jacks, Plates, Presses, Pulleys, Wrenches-**
(See Jacks, Plates, Presses, Pulleys, Wrenches.)
- Screw Machine Products-**
Automatic Machine Co., Greenfield, Mass.
Blake & Johnson, Waterbury, Ct.
Cleveland Cap Screw Co., Cleveland, O.
Grant Mfg. & Machine Co., Bridgeport, Ct.
Geo. Q. Hill Co., Boston, Mass.
Harvey Hubbell, Bridgeport, Ct.
John R. Keim Mills, Buffalo, N. Y.
National-Acme Mfg. Co., Cleveland, O.
New Machine Co., Danbury, Ct.
F. H. Smith Mfg. Co., 15-35 W. Randolph St., Chicago, Ill.
- Screw Machinery, Wood-**
Asa S. Cook Co., Hartford, Ct.

Screw Machines—

Automatic Machine Co., Greenfield, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.

Dresses Machine Tool Co., Cincinnati, O.
Garvin Machine Co., Spring & Varick Sts., New York.

Hartford Machine Screw Co., Hartford, Ct.
Jones & Lamson Machine Co., Springfield, Vt.

J. J. McCabe, 14 Dey St., New York.
E. J. Manville Mach. Co., Waterbury, Ct.

National-Acme Mfg. Co., Cleveland, O.
Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.
Warner & Swasey Co., Cleveland, O.

MERCHANTS.

George E. Affleck, 107 Liberty St., N. Y.
Baird Machinery Co., Pittsburgh, Pa.

J. H. Dawson Machinery Co., 39 S. Canal St., Chicago, Ill.

Fairbanks Co., 418 Broome St., New York.
Hall, Clarke & Co., Boston, Mass.

Marshall & Hinchart Machinery Co., 62-64 So. Canal St., Chicago, Ill.

McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co., Cleveland, O.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

Thornton Machinery Co., Providence, R. I.
Vandyck, Churchill Co., 8 Dey St., N. Y.

Screw Machines. Sheet Metal—

E. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Chas. Leffler & Co., Brooklyn, N. Y.

Niagara Machine & Tool Works, Buffalo, N. Y.

Screw Machines. Tools for—

Brown & Sharpe Mfg. Co., Providence, R. I.

Garvin Machine Co., Spring and Varick Sts., New York.

Hartford Machine Screw Co., Hartford, Ct.
New Machine Co., Danbury, Ct.

Pratt & Whitney Co., Hartford, Ct.

Screw Rods—

(See Rods, Screw.)

Screw Shaving Machines—

(See Shaving Machines, Screw.)

Screw Slotting Cutters—

(See Cutters, Milling.)

Screws, Bed—

Shelton Co., Shelton, Ct.
Upson Nut Co., Cleveland, O.

Screws, Bench—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Rock River Mfg. Co., Dixon, Ill.

Sandusky Tool Co., Sandusky, O.

Screws, Building Movers—

Kinsley Iron & Machine Co., Canton, Mass.

Screws, Cap and Set—

American Iron & Steel Mfg. Co., Lebanon, Pa.
Chicago Screw Co., 2 No. Canal St., Chicago, Ill.

Clark Bros. Bolt Co., Milldale, Ct.
Cleveland Cap Screw Co., Cleveland, O.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Geo. Q. Hill Co., Boston, Mass.
Harvey Hubbell, Bridgeport, Ct.

Franklin S. Miles Co., 205 Quarry St., Philadelphia, Pa.

National-Acme Mfg. Co., Cleveland, O.
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.

Rhode Island Tool Co., Providence, R. I.
St. Louis Screw Co., St. Louis, Mo.

Steward & Romaine Mfg. Co., Philadelphia, Pa.
Upson Nut Co., Cleveland, O.

Worcester Machine Screw Co., Worcester, Mass.

Screws, Cap, for Locks—

American Screw Co., Providence, R. I.

Screws, Coach and Lag—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Boston Bolt Co., Boston, Mass.
Clark Bros. Bolt Co., Milldale, Ct.

Graham Nut Co., Pittsburgh, Pa.
Sam'l Hall's Sons, 229-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Hubbard & Co., Pittsburgh, Pa.
M. Lanz & Sons, Pittsburgh, Pa.

Milton Mfg. Co., Milton, Pa.
National Bolt & Nut Co., Pittsburgh, Pa.

Republic Iron & Steel Co., Chicago, Ill.
St. Louis Screw Co., St. Louis, Mo.

Shelton Co., Shelton, Ct.
Upson Nut Co., Cleveland, O.

Screws, Collar—

Atlas Bolt & Screw Co., Cleveland, O.
Chicago Screw Co., 2 No. Canal St., Chicago, Ill.

Cleveland Cap Screw Co., Cleveland, O.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Geo. Q. Hill Co., Boston, Mass.
McCloud, Crane & Minter Co., Worcester, Mass.

Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
St. Louis Screw Co., St. Louis, Mo.

Worcester Machine Screw Co., Worcester, Mass.

Screws, Cork—

Dame, Stoddard & Co., Boston, Mass.
Erie Specialty Co., Erie, Pa.

Fritchard-Strong Co., Rochester, N. Y.
Smith & Hemenway Co., 108-110 Duane St., New York

Screws, Door Knob—

American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, O.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Screws, Drive—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Blake & Johnson, Waterbury, Ct.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.

Screws, Galvanized—

Keystone Nail Co., Philadelphia, Pa.

Screws, Hand—

Chapin-Stephens Co., Pine Meadow, Ct.
Sandusky Tool Co., Sandusky, O.

Screws, Hand Rail—

American Screw Co., Providence, R. I.
Malleable Iron Works, New Britain, Ct.

Parker Wire Goods Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.

- Screws, Hanger—**
American Iron & Steel Mfg. Co., Lebanon, Pa.
Boston Bolt Co., Boston, Mass.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
National-Acme Mfg. Co., Cleveland, O.
St. Louis Screw Co., St. Louis, Mo.
Upson Nut Co., Cleveland, O.
- Screws, Headless—**
Atlas Bolt & Screw Co., Cleveland, O.
Geo. Q. Hill Co., Boston, Mass.
- Screws, Hook and Eye—**
American Iron & Steel Mfg. Co., Lebanon, Pa.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Geo. Q. Hill Co., Boston, Mass.
M. Lanz & Sons, Pittsburgh, Pa.
W. & J. Tiebout, 118 Chambers St., N. Y.
- Screws, Machine—**
American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, O.
Automatic Machine Co., Greenfield, Mass.
Blake & Johnson, Waterbury, Ct.
Chicago Screw Co., 2 No. Canal St., Chicago, Ill.
Cleveland Cap Screw Co., Cleveland, O.
Geo. Q. Hill Co., Boston, Mass.
Harvey Hubbell, Bridgeport, Ct.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
National-Acme Mfg. Co., Cleveland, O.
Ohio Nut & Bolt Co., Berea, O.
Philadelphia Machine Screw Works, 624-626 Race St., Philadelphia, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh.
Progressive Mfg. Co., Torrington, Ct.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
St. Louis Screw Co., St. Louis, Mo.
Worcester Machine Screw Co., Worcester, Mass.
- Screws, Mirror—**
American Ring Co., Waterbury, Ct.
- Screws, Ore Washery—**
American Iron & Steel Mfg. Co., Lebanon, Pa.
- Screws, Piano Hardware—**
Blake & Johnson, Waterbury, Ct.
Progressive Mfg. Co., Torrington, Ct.
- Screws, Saw—**
Geo. H. Bishop & Co., Cincinnati, O.
Henry Diston & Sons, Philadelphia, Pa.
National Saw Co., Newark, N. J.
Simonds Mfg. Co., Fitchburg, Mass.
- Screws, Set and Cap—**
McCloud, Crane & Minter Co., Worcester, Mass.
- Screws, Shutter, Store Door—**
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
- Screws, Soft Expansion Machine, Electricians' and Plumbers'—**
A. C. Seaman, 1638 Hutchinson St., Philadelphia, Pa.
- Screws, Special—**
American Iron & Steel Mfg. Co., Lebanon, Pa.
Atlas Bolt & Screw Co., Cleveland, O.
Automatic Machine Co., Greenfield, Mass.
Chas. H. Bealy & Co., 15-21 Clinton St., Chicago, Ill.
Blake & Johnson, Waterbury, Ct.
- Cleveland Cap Screw Co., Cleveland, O.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Geo. Q. Hill Co., Boston, Mass.
Harvey Hubbell, Bridgeport, Ct.
Franklin S. Miles Co., 205 Quarry St., Philadelphia, Pa.
National-Acme Mfg. Co., Cleveland, O.
Philadelphia Machine Screw Works, 624-626 Race St., Philadelphia, Pa.
Progressive Mfg. Co., Torrington, Ct.
Arthur T. Rutter & Co., 256 Broadway, New York.
F. H. Smith Mfg. Co., 18-30 W. Randolph St., Chicago, Ill.
- Screws, Thumb—**
Chas. H. Bealy & Co., 15-21 Clinton St., Chicago, Ill.
Billings & Spencer Co., Hartford, Ct.
Blake & Johnson, Waterbury, Ct.
Chicago Screw Co., 2 No. Canal St., Chicago, Ill.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Geo. Q. Hill Co., Boston, Mass.
Keystone Drop Forge Works, Chester, Pa.
Franklin S. Miles Co., 205 Quarry St., Philadelphia, Pa.
Parker Wire Goods Co., Worcester, Mass.
St. Louis Screw Co., St. Louis, Mo.
J. H. Williams & Co., Brooklyn, N. Y.
Wire Goods Co., Worcester, Mass.
- Screws, Wing—**
M. S. Brooks & Sons, Chester, Ct.
- Screws, Wood—**
American Screw Co., Providence, R. I.
Eagle Lock Co., Terryville, Ct.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Wire Goods Co., Worcester, Mass.
- Scribers, Metal—**
Massachusetts Tool Co., Greenfield, Mass.
L. S. Starrett Co., Athol, Mass.
- Scribers, Timber—**
Bemis & Call Hardware & Tool Co., Springfield, Mass.
- Scroll Saws and Scroll Saw Blades—**
(See Saws, Scroll, and Scroll Saw Blades.)
- Scrub Brushes—**
(See Brushes, Whitewash, Horse, &c.)
- Scuffle Hoes—**
(See Hoes, Scuffle.)
- Scutches, Bricklayers'—**
Marshalltown Trowel Co., Marshalltown, Ia.
- Scythe Stones—** (See Stones.)
- Scythes—**
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Alfred Field & Co., 93 Chambers St., New York.
National Cutlery Co., Detroit, Mich.
Wichausch & Hilger, 9-15 Murray St., N. Y.
- Seal Presses—**
(See Presses, Seal.)
- Sealing Wax Strings—**
Middletown Mfg. Co., Middletown, O.
- Seals, Machinery for Making Car—**
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.
- Seals, Notary, Lodge, Corporation, &c.—**
Geo. M. Ness, Jr., 61 Fulton St., New York.
New York Stencil Works, 100 Nassau St., New York.

- Seals, Sealing Devices, &c.**—
 Theo. Hertz Metal Co., St. Louis, Mo.
 R. Woodman Mfg. & Supply Co., Boston.
- Seals, Stamp.**
 Cary Mfg. Co., 19-21 Roosevelt St., N. Y.
- Seats, Pathub.**
 E. B. Estes & Sons, 45-47 John St., N. Y.
- Seats, Closet.**
 E. B. Estes & Sons, 45-47 John St., N. Y.
- Seats, Pressed Steel.**
 Avery Stamping Co., Cleveland, O.
 Youngstown Iron & Steel Roofing Co.,
 Youngstown, O.
- Second Hand Machinery.**
 Geo. E. Affleck, 109 Liberty St., N. Y.
 American Tool Works Co., Cincinnati, O.
 Badger State Machine Co., Janesville,
 Wis.
 Baird Machinery Co., Pittsburgh, Pa.
 B. F. Barnes Co., Rockford, Ill.
 Chas. Behlen, 72 Trinity Place, N. Y.
 Geo. H. Bowler, Cleveland, O.
 Marvin Briggs, 12 Broadway, New York.
 Brown & Zortman Machinery Co., Pitts-
 burgh, Pa.
 Browning Engineering Co., Cleveland, O.
 Caine & Pitt, Real Estate Trust Bldg.,
 Philadelphia, Pa.
 Carlin Machinery & Supply Co., Alle-
 gheny, Pa.
 Chicago Edison Co., Edison Bldg., Chi-
 cago, Ill.
 Chicago House Wrecking Co., W. 35th
 and Iron Sts., Chicago, Ill.
 John W. Cole, Providence, R. I.
 Columbus Equipment Co., Columbus, O.
 T. P. Conard & Co., 119 So. 4th St.,
 Philadelphia, Pa.
 R. M. Cunliffe, 1142 Washington Ave.,
 Philadelphia, Pa.
 J. H. Dawson Machinery Co., 39-41 S.
 Canal St., Chicago, Ill.
 Charles E. Dustin Co., 11 Broadway,
 New York.
 B. M. Everson, Pittsburgh, Pa.
 Fairbanks Co., 416 Broome St., New York.
 Frevert Machinery Co., 18 Dey St., N. Y.
 Garvin Machine Co., Spring & Varick
 Sts., New York.
 Hannon & Pinton, Springfield, Mass.
 F. M. Hicks & Co., Chicago, Ill.
 Hill, Clarke & Co., Boston, Mass.
 J. H. Hillman & Son, Pittsburgh, Pa.
 Cal. Hirsch & Sons Iron & Rail Co.,
 St. Louis, Mo.
 Henry A. Hittner's Sons, Huntington St.
 and Aramingo Ave., Philadelphia, Pa.
 Hub Machine & Tool Co., 621-623 Cherry
 St., Philadelphia, Pa.
 Huntington Machinery & Supply Co.,
 Wilkes-Barre, Pa.
 W. C. Johnson & Sons Machinery Co.,
 St. Louis, Mo.
 A. V. Kaiser & Co., 222 So. 3d St., Phil-
 adelphia, Pa.
 Lodge & Shipley Machine Tool Co., Cin-
 cinnati, O.
 Lovegrove & Co., 143-145 No. 3d St.,
 Philadelphia, Pa.
 J. J. McCabe, 14 Dey St., New York.
 McDowell & Co., Allegheny Pa.
 McDowell, Stocker & Co., 59-61 So. Canal
 St., Chicago, Ill.
 Geo. A. McLean & Co., Pittsburgh, Pa.
 Manning, Maxwell & Moore, 85 Liberty
 St., New York.
- Marshall & Huschart Machine Co., 62-
 64 So. Canal St., Chicago, Ill.
 Henry J. Miller's Sons, Bridgewater, Mass.
 Motch & Merryweather Machinery Co.,
 Cleveland, O.
 New York Machinery Depot, 178 Broad-
 way, New York.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.
 Frank L. Patterson & Co., 26 Cortlandt
 St., New York.
 Phillips-Lafitte Co., Pennsylvania Bldg.,
 Philadelphia, Pa.
 Pratt & Whitney Co., Hartford, Ct.
 Prentiss Tool & Supply Co., 115 Liberty
 St., New York.
 Louis E. Rechtin & Bro., Cincinnati, O.
 A. E. Rosenthal, Davenport, Ia.
 Rossiter, MacGovern & Co., 17 Battery
 Place, New York.
 Joseph T. Ryerson & Son, 18-22 Milwau-
 kee Ave., Chicago, Ill.
 W. L. Sargent, Fitchburg, Mass.
 Scully Steel & Iron Co., Halsted and
 Wayman Sts., Chicago, Ill.
 L. F. Seyfert's Sons, 437 No. 3d St.,
 Philadelphia, Pa.
 Shook & Fletcher, Birmingham, Ala.
 Southern Iron & Equipment Co., Atlanta,
 Ga.
 Stiles-Morse Co., Western Union Bldg.,
 Chicago, Ill.
 H. A. Stocker Machinery Co., 20 S. Clin-
 ton St., Chicago, Ill.
 Thomas & Lowe Machinery Co., Provi-
 dence, R. I.
 Thompson-Bonney Co., Brooklyn, N. Y.
 Thornton Machinery Co., Providence,
 R. I.
 Frank Toomey, 127-131 No. 3d St., Phil-
 adelphia, Pa.
 Jacob Ullman, Buffalo, N. Y.
 Vandeyck, Churchill Co., 8 Dey St., N. Y.
 Walsh's Sons & Co., Newark, N. J.
 William Ward, Pittsburgh, Pa.
 Wickes Bros., Saginaw, Mich.
 E. O. Williams, 63 So. Canal St., Chi-
 cago, Ill.
 C. C. Wormer Machinery Co., Detroit.
 Yearley & Levene, 305 N. 3d St., Phila-
 delphia, Pa.
- Section Liners.**
 (See Liners, Section.)
- Seed Cases, Sowers.**
 (See Cases, Sowers.)
- Seeders, Broadcast.**
 Adam's Steel & Wire Works, Joliet, Ill.
 Cutaway Harrow Co., Higanum, Ct.
- Seeders, Cherry.**
 (See Stoners, Cherry.)
- Seeders, Rainin.**
 Enterprise Mfg. Co., Philadelphia, Pa.
 A. C. Williams, Ravenna, O.
- Segments, Commutator.**
 (See Commutator Bars and Segments.)
- Selling Agents, Hardware.**
 (See Agents, Hardware Manufacturers.)
- Separators, Cream, Parts for.**
 John R. Keim Mills, Buffalo, N. Y.
- Separators, Egg.**
 Wire Goods Co., Worcester, Mass.
- Separators, Magnetic.**
 Charles T. Burlin, Whitinsville, Mass.
 Geo. V. Cresson Co., 18th St. and Alle-
 gheny Ave., Philadelphia, Pa.

General Electric Co., Schenectady, N. Y.
J. D. Smith Foundry Supply Co., Cleveland, O.

Separators, Oil—

American Tool Works Co., Cincinnati, O.
Baum Separator & Machine Co., Mannheim, Pa.
Burt Mfg. Co., Akron, O.
Albert H. Curtis, Worcester, Mass.
Greenaway Co., Detroit, Mich.
Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.
John T. Lindstrom, Allentown, Pa.
Frank L. Patterson & Co., 26 Cortlandt St., New York.
Warren Webster & Co., Camden, N. J.
Whitlock Coil Pipe Co., Hartford, Ct.

Separators, Pneumatic—
B. F. Sturtevant Co., Hyde Park, Mass.

Separators, Steam—
Baum Separator & Machine Co., Mannheim, Pa.
Julian D'Este Co., Boston, Mass.
Greenaway Co., Detroit, Mich.
Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.
John T. Lindstrom, Allentown, Pa.
Frank L. Patterson & Co., 26 Cortlandt St., New York.
Pittsburgh Valve Foundry & Construction Co., Pittsburgh, Pa.
Ritter-Conley Mfg. Co., Pittsburgh, Pa.
Warren Webster & Co., Camden, N. J.
Whitlock Coil Pipe Co., Hartford, Ct.
Wickes Bros., Saginaw, Mich.

Servers, Salad—
American Cutlery Co., Chicago, Ill.

Set Screws—

(See Screws, Cap and Set.)

Sets, Assorted Lathe Tool and Fixture—

O. K. Tool Holder Co., Shelton, Ct.
L. S. Starrett Co., Athol, Mass.

Sets, Brad—

L. S. Starrett Co., Athol, Mass.

Sets, Combination—

L. S. Starrett Co., Athol, Mass.

Sets, Communion, Silver Plated—

International Silver Co., 9-13 Maiden Lane, New York.

Sets, Door, Screen and Storm—

National Mfg. Co., Sterling, Ill.

Sets, Floral Tool—

Potter Mfg. Co., Geneva, O.

Sets, Garden Tool—

American Fork & Hoe Co., Cleveland, O.
Arcade Mfg. Co., Freeport, Ill.
Potter Mfg. Co., Geneva, O.
Wrightsville Hardware Co., Wrightsville, Pa.

Sets, Hook—

Eyeteel Tool Co., Boston, Mass.

Sets, Nail—

Charles Buck Edge Tool Co., Millbury, Mass.
Buck Bros. Millbury, Mass.
Ducharmes & Co., Shelburne Falls, Mass.
Goodell-Pratt Co., Springfield, Mass.
Irwin Auger Bit Co., Wilmington, O.
C. E. Jennings & Co., 42 Murray St., N. Y.
Keystone Mfg. Co., Buffalo, N. Y.
Kilborn & Bishop Co., New Haven, Ct.
Massachusetts Saw Works, Chicopee, Mass.

H. H. Mayhew Co., Shelburne Falls, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Snell Mfg. Co., Fiskdale, Mass.

L. S. Starrett Co., Athol, Mass.

Storm Mfg. Co., Newark, N. J.

Tuck Mfg. Co., Brockton, Mass.

Vaughan & Bushnell Mfg. Co., Chicago.

Sets, Rivet—

Eyeteel Tool Co., Boston, Mass.

Niagara Machine & Tool Co., Buffalo, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Vaughan & Bushnell Mfg. Co., Chicago.

Sets, Saw—

E. C. Atkins & Co., Indianapolis, Ind.
Bemis & Call Hardware & Tool Co., Springfield, Mass.

Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.

Henry Disston & Sons, Philadelphia, Pa.

John H. Graham & Co., 113 Chambers St., New York.

Kilborn & Bishop Co., New Haven, Ct.

P. E. Kohler & Co., Canton, O.

Chas. Morrill, 277 Broadway, N. Y.

National Saw Co., Newark, N. J.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Simonds Mfg. Co., Fitchburg, Mass.

Smith & Hemenway Co., 108-110 Duane St., New York.

Taintor Mfg. Co., 113 Chambers St., N. Y.

Sets, Screw Driver and Tool—

John S. Fray & Co., Bridgeport, Ct.

Goodell-Pratt Co., Greenfield, Mass.

Millers Falls Co., 28 Warren St., N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Smith & Hemenway Co., 108-110 Duane St., New York.

Sets, Shaving—

Smith & Hemenway Co., 108-110 Duane St., New York.

Sets, Smokers', Silver Plated—

Arcade Mfg. Co., Freeport, Ill.

W. L. Barrett, Bristol, Ct.

Millers Falls Co., 28 Warren St., N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., N. Y.

Smith & Hemenway Co., 108-110 Duane St., New York.

Sets, Tea, Coffee, Curling, Manicure, Smokers', &c., Silver Plated—

International Silver Co., 9-13 Maiden Lane, New York.

Sets, Tool, Hollow Handle—

John S. Fray & Co., Bridgeport, Ct.

C. E. Jennings & Co., 42 Murray St., N. Y.

Millers Falls Co., 28 Warren St., N. Y.

Stanley Rule & Level Co., New Britain, Ct.

Settees, Lawn—
(See Chairs and Settees, Lawn.)

Setting and Filing Machines, Saw—

Detrick & Harvey Machine Co., Baltimore.

Henry Disston & Sons, Philadelphia, Pa.

Sewage Disposal Apparatus—

Merritt & Co., 1024-1028 Ridge Ave., Philadelphia, Pa.

Sewer Castings—

(See Castings, Man Hole, Cistern Cover, Sewer, Gutter, Crossing, &c.)

Sewer Connections—

(See Boots.)

Sewer Gratings—

(See Gratings, Foundation, Sewer, &c.)

Sewing Machine Attachments—

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Sewing Machines—

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

National Sewing Machine Co., Belvidere, Ill.

Sextants—

Kaufel & Esser Co., 127 Fulton St., N. Y. Riggs & Bro., 310 Market St., Philadelphia, Pa.

Shackles, Chain—

Lebanon Chain Works, Lebanon, Pa. Standard Chain Co., Pittsburgh, Pa.

Shackles, Shaft, Safety—

R. H. Brown & Co., New Haven, Ct. A. Leschen & Sons Rope Co., St. Louis,

Shade Cord—

(See Cord, Shade and Ventilator.)

Shade Pulleys—

(See Pulleys, Self Adjustable Shade.)

Shaft Adjusters, Hangers, &c.—

(See Adjusters, Hangers, &c.)

Shaft Levels— (See Levels, Shaft.)**Shaft Straightening Machinery—**

Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa. Bradford Mach. Tool Co., Cincinnati, O. Niles-Bement-Pond Co., 111 Broadway, New York.

Wm. Sellers & Co. (Inc.), Philadelphia. Watson-Stillman Co., 46 Dev St., N. Y.

Wicks Bros., Saginaw, Mich.

Shaft Trimmings, Leather—

(See Trimmings, Shaft, Leather.)

Shafting—

Allentown Rolling Mills, Allentown, Pa. American Tool & Machine Co., Boston. Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Birmingham Iron Foundry, Derby, Ct. Buhl Malleable Co., Detroit, Mich.

Case Mfg. Co., Columbus, O.

Cleveland City Forge & Iron Co., Cleveland, O.

Columbia Bridge Co., Pittsburgh, Pa.

Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.

C. H. A. Dissinger & Bro., Wrightsville, Pa.

Farrel Foundry & Mach. Co., Ansonia, Ct.

Finished Steel Co., Youngstown, O.

Howard Iron Works, Buffalo, N. Y.

Joffrey Mfg. Co., Columbus, O.

Jones & Laughlin Steel Co., Pittsburgh.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

National Wire Corporation, New Haven.

C. Pardee Works, Perth Amboy, N. J.

F. R. Patch Mfg. Co., Rutland, Vt.

Poele Engineering & Machine Co., Baltimore, Md.

Republic Iron & Steel Co., Chicago, Ill.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

Tindell-Morris Co., Eddystone, Pa.

Titusville Forge Co., Titusville, Pa.

Edgar T. Ward & Sons, Boston, Mass.

Warsaw Elevator Co., Warsaw, N. Y.

MERCHANTS—

Baird Machinery Co., Pittsburgh, Pa.

Bourne-Fuller Co., Cleveland, O.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

W. E. Caldwell Co., Louisville, Ky.

Charter Gas Engine Co., Sterling, Ill.

W. P. Davis Machine Co., Rochester, N. Y.

Dennan & Davis, 85 John St., New York.

Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.

Dodge Mfg. Co., Mishawaka, Ind.

Barclay M. Everson, Pittsburgh, Pa.

Fairbanks Co., 416 Broome St., New York.

Falls Rivet & Machine Co., Cuyahoga Falls, O.

I. & E. Greenwald Co., Cincinnati, O.

Arthur C. Harvey Co., Boston, Mass.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

Humphrey Machine Co., Keene, N. H.

Harold McCalla, 619 N. Front St., Philadelphia, Pa.

McClernan & Orr, Monadnock Block, Chicago, Ill.

Geo. Nash & Co., 24 S. Clinton St., Chicago, Ill.

Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.

Phillips-Lafitte Co., Pennsylvania Bldg., Philadelphia, Pa.

Pierson & Co., 29 Broadway, New York.

Joseph T. Ryerson & Son, 18 Milwaukee Ave., Chicago, Ill.

G. H. Schrock, 291 Pearl St., New York.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

L. F. Seyfert's Sons, 437-441 No. 3d St., Philadelphia, Pa.

Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.

Walsh's Sons & Co., Newark, N. J.

Wicks Bros., Saginaw, Mich.

Shafting Collars, Oilers—

(See Collars, Oilers.)

Shafting, Polished—

Columbia Bridge Co., Pittsburgh, Pa.

Finished Steel Co., Youngstown, O.

C. Pardee Works, Perth Amboy, N. J.

Shafts, Automobile Crank—

Tindell-Morris Co., Eddystone, Pa.

Shafts, Automobile Crank, Finished to Order—

Norton Grinding Co., Worcester, Mass.

Tindell-Morris Co., Eddystone, Pa.

Shafts, Chrome Nickel Steel Crank—

Tindell-Morris Co., Eddystone, Pa.

Carnegie Steel Co., Pittsburgh, Pa.

Chrome Steel Works, Chicago, N. Y.

Cleveland City Forge & Iron Co., Cleveland, Ohio.

Columbia Bridge Co., Pittsburgh, Pa.

Erie Forge Co., Erie, Pa.

Keystone Drop Forge Works, Chester, Pa.

Richmond Forgings Corporation, Richmond, Va.

Tindell-Morris Co., Eddystone, Pa.

Titusville Forge Co., Titusville, Pa.

Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.

Worcester Steel Foundry Co., Worcester, Mass.

Wyman & Gordon, Worcester, Mass.

Shafts, Flexible—

Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.

Gem Mfg. Co., Pittsburgh, Pa.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Stow Mfg. Co., Binghamton, N. Y.

Shafts, Forged—

Carnegie Steel Co., Pittsburgh, Pa.

Chrome Steel Works, Chrome, N. J.

Columbia Bridge Co., Pittsburgh, Pa.

Erie Forge Co., Erie, Pa.

Titusville Forge Co., Titusville, Pa.

Shafts, Phosphor Bronze—

Riverside Metal Co., Riverside, N. J.

Shaker Salts—

(See Salts, Shaker.)

Shakers, Drink—

Erie Specialty Co., Erie, Pa.

Shakers, Stove—

Kramer Bros. Foundry Co., Dayton, O.

Shapers—

American Tool Works Co., Cincinnati, O.

Baush Machine Tool Co., Springfield, Mass.

Bignall & Keeler Mfg. Co., Edwardsville, Ill.

Boynott & Plummer, Worcester, Mass.

Cincinnati Shaper Co., Cincinnati, O.

Colburn Machine Tool Co., Franklin, Pa.

Crescent Machine Co., Leetonia, O.

Detrick & Harvey Machine Co., Baltimore, Md.

Fitchburg Machine Co., Fitchburg, Mass.

Mark Flather Planer Co., Nashua, N. H.

Fox Machine Co., Grand Rapids, Mich.

Garvin Machine Co., Spring and Varick Sts., New York.

Gould & Eberhardt, Newark, N. J.

Hendey Machine Co., Torrington, Ct.

Morton Mfg. Co., Muskegon Heights, Mich.

Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Potter & Johnston Machine Co., Pawtucket, R. I.

Pratt & Whitney Co., Hartford, Ct.

Wm. Sellers & Co. (Inc.), Philadelphia.

Stockbridge Machine Co., Worcester, Mass.

Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.

MERCHANTS.

Geo. E. Affleck, 109 Liberty St., N. Y.

Baird Machinery Co., Pittsburgh, Pa.

Brown & Zortman Machinery Co., Pittsburgh, Pa.

Columbus Equipment Co., Columbus, O.

J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.

Frevort Machinery Co., 18 Dey St., N. Y.

Hill, Clarke & Co., Boston, Mass.

Hub Machine & Tool Co., 621-623 Cherry St., Philadelphia, Pa.

Huntington Machinery & Supply Co., Wilkes-Barre, Pa.

W. C. Johnson & Sons Machinery Co., St. Louis, Mo.

McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.

J. J. McCabe, 14 Dey St., New York.

Manning, Maxwell & Moore, 85 Liberty St., New York.

Marshall & Huchart Machinery Co., 62-64 So. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co., Cleveland, O.

New Haven Mfg. Co., New Haven, Ct.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

H. A. Rogers Co., 19 John St., N. Y.

L. F. Seyfert's Sons, 437-441 No. 3d St., Philadelphia, Pa.

H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.

Thompson-Bonney Co., Brooklyn, N. Y.

Thornton Machinery Co., Providence, R. I.

Frank Toomey, 127-131 N. 3d St., Philadelphia, Pa.

Jacob Ullman, Buffalo, N. Y.

Vandyck Churchill Co., 8 Dey St., N. Y.

Wickes Bros., Saginaw, Mich.

C. C. Wormer Machinery Co., Detroit, Mich.

Shapers, Draw-Cut Iron—

Morton Mfg. Co., Muskegon Heights, Mich.

Shapers, Traverse, Single or Double Head—

Cincinnati Shaper Co., Cincinnati, O.

Hendey Machine Co., Torrington, Ct.

Morton Mfg. Co., Muskegon Heights, Mich.

Niles-Bement-Pond Co., 111 Broadway, New York.

Wm. Sellers & Co. (Inc.), Philadelphia.

Shapers, Universal—

Potter & Johnston Machine Co., Pawtucket, R. I.

Shapes, Agricultural—

Avery Stamping Co., Cleveland, O.

Barrow Spring Co., Kalamazoo, Mich.

Jones & Laughlin Steel Co., Pittsburgh.

Republic Iron & Steel Co., Chicago, Ill.

Shapes, Bar Steel, to order—

W. J. Clark Co., Salem, O.

Shapes, Cold Drawn—

Avery Stamping Co., Cleveland, O.

Columbia Bridge Co., Pittsburgh, Pa.

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

National Wire Corporation, New Haven, Ct.

C. Pardee Works, Perth Amboy, N. J.

Shapes, Cold Drawn and Polished—

Columbia Bridge Co., Pittsburgh, Pa.

Shapes, Pressed Steel—

Avery Stamping Co., Cleveland, O.

Carnegie Steel Co., Pittsburgh, Pa.

Lough-Scott Co., 26 Cortlandt St., N. Y.

H. A. Matthews Mfg. Co., Seymour, Ct.

Pressed Steel Tank Co., Milwaukee, Wis.

Standard Pressed Steel Co., 20th and Clearfield Sts., Philadelphia, Pa.

Shapes, Sheet Steel, Cut to Order—

Avery Stamping Co., Cleveland, O.

Janey, Steinmetz & Co., 741 Drexel Bldg., Philadelphia, Pa.

R. C. Jenkinson & Co., Newark, N. J.

Shapes, Special, High Carbon Steel—

Avery Stamping Co., Cleveland, O.

Shaping Machines, Wood—

Defiance Machine Co., Defiance, O.

Sharpeners, Dowel—

Stanley Rule & Level Co., New Britain, Ct.

Sharpeners, Knife—

American Emery Wheel Works, Providence, R. I.

- Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
 Alfred Field & Co., 93 Chambers St., New York.
 Millers Falls Co., 28 Warren Street, New York.
 Mossberg Wrench Co., Central Falls, R. I.
 Pike Mfg. Co., Pike, N. H.
 Louis Sacks, Newark, N. J.
 Star Corundum Wheel Co., Detroit, Mich.
 Sterling Emery Wheel Mfg. Co., Tiffin, O.
Sharpeners, Lawn Mower—
 Osborn Mfg. Co., Cleveland, O.
 Smith & Hemenway Co., 108-110 Duane St., New York.
Sharpeners, Mower Knife—
 Cutaway Harrow Co., Higanum, Ct.
Sharpeners, Pencil—
 Turner & Seymour Mfg. Co., Torrington, Ct.
Sharpeners, Razor—
 F. A. Reichardt & Co., 391 Broadway, New York.
Sharpeners, Saw—
 Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
 Diamond Machine Co., Providence, R. I.
 Henry Dinston & Sons, Philadelphia, Pa.
 Fairbanks Co., 416 Broome St., New York.
 Nutter, Barnes & Co., Boston, Mass.
 Wickes Bros., Saginaw, Mich.
Sharpeners, Saw, Auto-matic—
 Espen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.
 Nutter, Barnes & Co., Boston, Mass.
 Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.
Sharpeners, Skate—
 Osborn Mfg. Co., Cleveland, O.
 Pike Mfg. Co., Pike, N. H.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Samuel Winslow Skate Mfg. Co., Worcester, Mass.
Shavers and Slotters, Wood Screw—
 Aaa S. Cook Co., Hartford, Ct.
Shavers, Beef—
 (See Cutters, Smoked Beef.)
Shavers, Bolt Head—
 National Machinery Co., Tiffin, O.
Shavers, Ice—
 (See Ice Harvesting Tools.)
Shavers, Ice—
 Arcade Mfg. Co., Freeport, Ill.
 Enterprise Mfg. Co., Philadelphia, Pa.
 Erie Specialty Co., Erie, Pa.
 North Bros. Mfg. Co., Philadelphia, Pa.
 L. & I. J. White Co., Buffalo, N. Y.
 A. C. Williams, Ravenna, O.
Shavers, Spoke—
 Chapin-Stephens Co., Pine Meadow, Ct.
 Goodell-Pratt Co., Greenfield, Mass.
 C. E. Jennings & Co., 42 Murray St., New York.
 Millers Falls Co., 28 Warren St., N. Y.
 Stanley Rule & Level Co., New Britain, Ct.
 Union Mfg. Co., New Britain, Ct.
 L. & I. J. White Co., Buffalo, N. Y.
Shavers, Tobacco—
 North Bros. Mfg. Co., Philadelphia, Pa.
Shavers, Cups, Silver Plated—
 (See Cups, Children's, Shaving, Silver Plated.)
Shaving Machines, Screw—
 Garvin Machine Co., Spring & Varick Sts., New York.
 Hartford Machine Screw Co., Hartford, Ct.
 Pratt & Whitney Co., Hartford, Ct.
Shear Blades, Metal—
 (See Blades, Metal Shear.)
Shear, Steel, Double—
 (See Steel, Double Shears.)
Shearing Machines, Hand—
 Badger State Machine Co., Janesville, Wis.
 Bertsch & Co., Cambridge City, Ind.
 R. E. Kidder, Worcester, Mass.
 New Doty Mfg. Co., Janesville, Wis.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Pratt & Whitney Co., Hartford, Ct.
 Rock River Machine Co., Janesville, Wis.
 Watson-Stillman Co., 46 Dey St., N. Y.
Shearing Metal—
 (See Sheet Metal Work.)
Shears, Alligator—
 Badger State Machine Co., Janesville, Wis.
 Birmingham Iron Foundry, Derby, Ct.
 Hillis & Jones Co., Wilmington, Del.
 National Machinery Co., Tiffin, O.
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.
 Pittsburgh Industrial Iron Works, Pittsburgh, Pa.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
 Watson-Stillman Co., 46 Dey St., N. Y.
Shears and Scissors—
 Acme Shear Co., Bridgeport, Ct.
 Atlas Shear Co., Bridgeport, Ct.
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
 Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Alfred Field & Co., 93 Chambers St., New York.
 R. Heinisch's Sons Co., Newark, N. J.
 Adolph Kastor & Bros., 109 Duane St., New York.
 National Cutlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.
 Schuchardt & Schutte, 136 Liberty St., New York.
 A. L. Silberstein, 459-461 Broadway, N. Y.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Wiebusch & Hilger, 9-15 Murray St., N. Y.
 (See also Scissors.)
Shears and Snips, Dental—
 R. Heinisch's Sons Co., Newark, N. J.
 National Cutlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.
 Schuchardt & Schutte, 136 Liberty St., New York.
 Wiebusch & Hilger, 9-15 Murray St., N. Y.
Shears and Snips, Jewelers—
 Schuchardt & Schutte, 136 Liberty St., New York.
Shears and Snips, Tanners—
 Acme Shear Co., Bridgeport, Ct.
 Atlas Shear Co., Bridgeport, Ct.
 Badger State Machine Co., Janesville, Wis.
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
 R. Heinisch's Sons Co., Newark, N. J.
 Kilborn & Bishop Co., New Haven, Ct.

- National Cutlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Wiebusch & Hilger, 9-15 Murray St., N. Y.
Shears, Bankers' and Paper Hangers'—
 Acme Shear Co., Bridgeport, Ct.
 Atlas Shear Co., Bridgeport, Ct.
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
 Alfred Field & Co., 93 Chambers St., New York.
 R. Heinisch's Sons Co., Newark, N. J.
 National Cutlery Co., Philadelphia, Pa.
 A. L. Silberstein, 459-461 Broadway, N. Y.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Wiebusch & Hilger, 9-15 Murray St., N. Y.
Shears, Barbers'—
 Acme Shear Co., Bridgeport, Ct.
 Atlas Shear Co., Bridgeport, Ct.
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
 Alfred Field & Co., 93 Chambers St., New York.
 R. Heinisch's Sons Co., Newark, N. J.
 National Cutlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.
 A. L. Silberstein, 459-461 Broadway, N. Y.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Wiebusch & Hilger, 9-15 Murray St., N. Y.
Shears, Beam and Channel—
 Alliance Machine Co., Alliance, O.
 Badger State Machine Co., Janesville, Wis.
 Bertsch & Co., Cambridge City, Ind.
 Fischer Foundry & Machine Co., Pittsburgh, Pa.
 Hilles & Jones Co., Wilmington, Del.
 George A. Hogg Iron & Steel Foundry Co., Pittsburgh, Pa.
 Long & Allstatter Co., Hamilton, O.
 New Doty Mfg. Co., Janesville, Wis.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Henry Pels & Co., 66 Broad St., N. Y.
 Roversford Foundry & Machine Co., Roversford, Pa.
 Wm. Sellers & Co. (Inc.), Philadelphia, United Engineering & Foundry Co., Pittsburgh, Pa.
 Watson-Stillman Co., 46 Dey St., N. Y.
 Wellman-Seaver-Morgan Co., Cleveland, O.
 Williams, White & Co., Moline, Ill.
Shears, Candy—
 R. Heinisch's Sons Co., Newark, N. J.
 Wiebusch & Hilger, 9-15 Murray St., N. Y.
Shears, Circular Metal—
 Blake & Johnson, Waterbury, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Gould & Eberhardt, Newark, N. J.
 R. Heinisch's Sons Co., Newark, N. J.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
Shears, Electricians'—
 R. Heinisch's Sons Co., Newark, N. J.
 A. L. Silberstein, 459-461 Broadway, N. Y.
 Smith & Hemenway Co., 108-110 Duane St., New York.
Shears for Nail Mill Scrap—
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
Shears, Fruit and Flower Gathering—
 Columbia Grey Iron Co., Columbia, Pa.
Shears, Game or Bird—
 Landers, Frary & Clark New Britain, Ct.
Shears, Garden—
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Wiebusch & Hilger, 9-15 Murray St., New York.
Shears, Glass—
 R. Heinisch's Sons Co., Newark, N. J.
Shears, Grape—
 Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Smith & Hemenway Co., 108-110 Duane St., New York.
Shears, Grass and Lawn—
 Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Geo. E. Gay, Augusta, Me.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Wilkinson Shear & Cutlery Co., Reading, Pa.
Shears, Hedge—
 Wilkinson Shear & Cutlery Co., Reading, Pa.
Shears, Horse and Mule—
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Wilkinson Shear & Cutlery Co., Reading, Pa.
Shears, Hydraulic—
 Henry Aiken, Pittsburgh, Pa.
 Alliance Machine Co., Alliance, O.
 Bertsch & Co., Cambridge City, Ind.
 Fischer Foundry & Machine Co., Pittsburgh, Pa.
 Mackintosh, Hemphill & Co., Pittsburgh, Pa.
 Mesta Machine Co., Pittsburgh, Pa.
 Morgan Construction Co., Worcester, Mass.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Power Specialty Co., 111 Broadway, N. Y.
 Watson-Stillman Co., 46 Dey St., N. Y.
 Wellman-Seaver-Morgan Co., Cleveland, O.
 Williams, White & Co., Moline, Ill.
 K. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
Shears, Metal Hand—
 Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.
Shears, Metal Squaring and Circle—
 Adriance Machine Works, Brooklyn, N. Y.
 Henry Aiken, Pittsburgh, Pa.
 Alliance Machine Co., Alliance, O.
 Badger State Machine Co., Janesville, Wis.
 Beaudry & Co., Boston, Mass.
 Bertsch & Co., Cambridge City, Ind.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Birmingham Iron Foundry, Derby, Ct.
 Blake & Johnson, Waterbury, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Buffalo Forge Co., Buffalo, N. Y.
 Thomas Carlin's Sons Co., Allegheny, Pa.
 Chandler & Farquhar Co., Boston, Mass.
 Consolidated Press & Tool Co., 56-100 N. Clinton St., Chicago, Ill.
 Davis Mfg. Co., Milwaukee, Wis.

- Chas. G. Eckstein, 249 Centre St., N. Y.
 Farrel Mfg. & Mach. Co., Ansonia, Ct.
 Fischer Foundry & Machine Co., Pitts-
 burgh, Pa.
 Gould & Eberhardt, Newark, N. J.
 Heppenstall Forge & Knife Co., Pitts-
 burgh, Pa.
 W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
 Hilles & Jones Co., Wilmington, Del.
 George A. Hogg Iron & Steel Foundry
 Co., Pittsburgh, Pa.
 R. E. Kidder, Worcester, Mass.
 Kimball Bros. & Sprague, Brockton,
 Mass.
 Chas. Leffler & Co., Brooklyn, N. Y.
 Lewis Foundry & Machine Co., Pitts-
 burgh, Pa.
 J. H. Lingle, Bellefonte, Pa.
 Long & Allstatter Co., Hamilton, O.
 Mackintosh, Hemphill & Co., Pittsburgh
 McDougall & Potter Co., 602 W. 55th St.,
 New York.
 C. S. Mersick & Co., New Haven, Ct.
 Mesta Machine Co., Pittsburgh, Pa.
 Morgan Construction Co., Worcester,
 Mass.
 National Machinery Co., Tiffin, O.
 R. S. Newbold & Son Co., Norristown,
 Pa.
 New Doty Mfg. Co., Janesville, Wis.
 Niagara Machine & Tool Works, Buffalo,
 N. Y.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.
 Novelty Iron Works, Dubuque, Ia.
 George A. Ohl & Co., Newark, N. J.
 Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.
 Henry Pels & Co., 66-68 Broad St., N. Y.
 Pittsburgh Industrial Iron Works, Pitts-
 burgh, Pa.
 J. M. Robinson Mfg. Co., Cincinnati, O.
 Rock River Machine Co., Janesville, Wis.
 Roversford Foundry & Machine Co.,
 Roversford, Pa.
 Wm. Sellers & Co., Inc., Philadelphia.
 Smith & Egge Mfg. Co., Bridgeport, Ct.
 C. E. Sutton Co., Toledo, O.
 United Engineering & Foundry Co.,
 Pittsburgh, Pa.
 Waterbury Farrel Foundry & Machine
 Co., Waterbury, Ct.
 Watson-Stillman Co., 46 Dey St., N. Y.
 Wickes Bros., Saginaw, Mich.
 Williams, White & Co., Moline, Ill.
 R. D. Wood & Co., 400 Chestnut St.,
 Philadelphia, Pa.
- MERCHANTS.
 George E. Affleck, 107 Liberty St., N. Y.
 Baird Machinery Co., Pittsburgh, Pa.
 J. H. Dawson Machinery Co., 39-41 S.
 Canal St., Chicago, Ill.
 Barclay M. Everson, Pittsburgh, Pa.
 Fairbanks Co., 416 Broome St. New York.
 Hill, Clarke & Co., Boston, Mass.
 Irving Mfg. & Tool Co., 157 Chambers St.,
 New York.
 Harold McCalla, 619 N. Front St., Phila-
 delphia, Pa.
 Manning, Maxwell & Moore, 85 Liberty
 St., New York.
 Merchant & Evans Co., Philadelphia, Pa.
 New York Machinery Depot, 120 Broad-
 way, New York.
 Patterson, Gottfried & Hunter, Ltd., 146-
 150 Centre St., New York.
- Phillips-Laffitte Co., Pennsylvania Bldg.,
 Philadelphia, Pa.
 Prentiss Tool & Supply Co., 115 Liberty
 St., New York.
 Joseph T. Ryerson & Son, 18-22 Milwau-
 kee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and
 Wayman Sts., Chicago, Ill.
 L. F. Seyfert's Sons, 437-441 No. 3d St.,
 Philadelphia, Pa.
 Stiles-Morse Co., Western Union Bldg.,
 Chicago, Ill.
 Thornton Machinery Co., Providence,
 R. I.
 Frank Toomey, 127-131 No. 3d St., Phil-
 adelphia, Pa.
 Vandyck, Churchill Co., 8 Dey St., N. Y.
- Shears, Plate Beveling—**
 E. W. Bliss Co., Brooklyn, N. Y.
 Hilles & Jones Co., Wilmington, Del.
 Long & Allstatter Co., Hamilton, O.
 Mackintosh, Hemphill & Co., Pittsburgh.
 New Doty Mfg. Co., Janesville, Wis.
 Niagara Machine & Tool Works, Buffalo,
 N. Y.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.
 Rock River Machine Co., Janesville, Wis.
 Wm. Sellers & Co. (Inc.), Philadelphia.
 Williams, White & Co., Moline, Ill.
- Shears, Pruning—**
 Columbia Grey Iron Co., Columbia, Pa.
 Cronk & Carrier Mfg. Co., Elmira,
 N. Y.
 John H. Graham & Co., 113 Chambers
 St., New York.
 R. Heinisch's Sons Co., Newark, N. J.
 F. E. Kohler & Co., Canton, O.
 National Cutlery Co., 3d St. and Lehigh
 Ave., Philadelphia, Pa.
 New England Specialty Co., North
 Easton, Mass.
 Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.
 Smith & Hemenway Co., 108-110 Duane
 St., New York.
 Wiebusch & Hilger, 9-15 Murray St.,
 N. Y.
 Wilkinson Shear & Cutlery Co., Reading,
 Pa.
- Shears, Roaching—**
 R. Heinisch's Sons Co., Newark, N. J.
- Shears, Rotary—**
 Bethlehem Foundry & Machine Co.,
 South Bethlehem, Pa.
 Blake & Johnson, Waterbury, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Consolidated Press & Tool Co., 96-100 N.
 Clinton St., Chicago, Ill.
 Detrick & Harvey Machine Co., Balti-
 more, Md.
 Heppenstall Forge & Knife Co., Pitts-
 burgh, Pa.
 Hilles & Jones Co., Wilmington, Del.
 Chas. Leffler & Co., Brooklyn, N. Y.
 Niagara Machine & Tool Works, Buffalo,
 N. Y.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.
 George A. Ohl & Co., Newark, N. J.
 Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.
 Henry Pels & Co., 66 Broad St., N. Y.
 Waterbury Farrel Foundry & Machine
 Co., Waterbury, Ct.
 Watson-Stillman Co., 46 Dey St., N. Y.

Shears, Rotary Circle Cutting—

Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.
B. S. Newbold & Son Co., Norristown, Pa.
Niagara Machine & Tool Works, Buffalo, N. Y.
George A. Ohl & Co., Newark, N. J.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Shears, Rubber and Leather—

R. Heinisch's Sons Co., Newark, N. J.
National Cutlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.
Smith & Hemenway Co., 108-110 Duane St., New York.

Shears, Sardine—

Dame, Stoddard & Co., Boston, Mass.

Shears, Sheep—

Alfred Field & Co., 93 Chambers St., New York.
Wiebusch & Hilger, 9-15 Murray St., New York.
Wilkinson Shear & Cutlery Co., Reading, Pa.

Shears, Slitting—

Badger State Machine Co., Janesville, Wis.

Blake & Johnson, Waterbury, Ct.
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Hilles & Jones Co., Wilmington, Del.
R. S. Newbold & Son Co., Norristown, Pa.
Niagara Machine & Tool Co., Buffalo, N. Y.

Niles-Bement-Pond Co., 111 Broadway, New York.

George A. Ohl & Co., Newark, N. J.
Rock River Machine Co., Janesville, Wis.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Shears, Tailors'—

R. Heinisch's Sons Co., Newark, N. J.
National Cutlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.
Wiebusch & Hilger, 9-15 Murray St., New York.

Shears, Wire—

J. M. King & Co., Waterford, N. Y.

Sheathing, Copper—

Hendricks Bros., 49 Cliff St., New York.

Merchant & Evans Co., Philadelphia, Pa.

Sheathing Paper—

(See Paper, Sheathing.)

Shears, Door—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

I. S. Spencer's Sons, Chicopee Falls, Mass.

W. & J. Tiebout, 118 Chambers St., N. Y.
Wrightsville Hardware Co., Wrightsville, Pa.

Shears, Hoisting—

Boston & Lockport Block Co., Boston.
Broderick & Bascom Rope Co., St. Louis.
Browning Engineering Co., Cleveland, O.
Case Mfg. Co., Columbus, O.
C. W. Hunt Co., West New Brighton, N. Y.

A. Leachen & Sons Rope Co., St. Louis.
Pennsylvania Engineering Works, New Castle, Pa.

Sheaves, Power Transmission—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

C. O. Bartlett & Snow Co., Cleveland, O.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Broderick & Bascom Rope Co., St. Louis.
Brown Hoisting Machinery Co., Cleveland, O.
H. W. Caldwell & Son, Western Ave. and 17th St., Chicago, Ill.

Thos. Carlin's Sons, Allegheny, Pa.
Case Mfg. Co., Columbus, O.

Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.
Fairbanks Co., 416 Broome St., New York.

Falls Rivet & Machine Co., Cuyahoga Falls, O.

I. & E. Greenwald Co., Cincinnati, O.
C. W. Hunt Co., West New Brighton, N. Y.

Jeffrey Mfg. Co., Columbus, O.
Jones & Laughlin Steel Co., Pittsburgh.

A. Leschen & Sons Rope Co., St. Louis.
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Pennsylvania Engineering Works, New Castle, Pa.

Poole Engineering & Machine Co., Baltimore, Md.

Wm. Sellers & Co., Inc., Philadelphia.
Souls Steam Feed Works, Meridian, Miss.

Trenton Iron Co., Trenton, N. J.

Sheaves, Sash—

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sheaves, Shutter—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sheaves, Tackle Block—

Boston & Lockport Block Co., Boston.
Broderick & Bascom Rope Co., St. Louis.

C. W. Hunt Co., West New Brighton, N. Y.

A. Leschen & Sons Rope Co., St. Louis.
W. & J. Tiebout, 118 Chambers St., N. Y.

Union Hardware Co., Torrington, Ct.

Sheaves, Wood Split—

Dodge Mfg. Co., Mishawaka, Ind.
Saginaw Mfg. Co., Saginaw, Mich.

Sheep Bells, Shears—

(See Bells, Shears.)

Sheep Shearing Machines—

American Shearer Mfg. Co., Nashua, N. H.
Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.

Sigourney Tool Co., Hartford, Ct.

Sheet and Roll Brass—

(See Brass, Roll and Sheet.)

Sheet and Roll Bronze—

(See Bronze, Roll & Sheet.)

Sheet Bars—

(See Bars, Sheet and Tin Plate.)

Sheet Copper—

(See Copper, Roll and Sheet.)

Sheet Corrugating Machinery—

J. M. Robinson Mfg. Co., Cincinnati, O.

Sheet Guides—

(See Guides, Sheet and Rope.)

Sheet Iron, Cold Rolled—

American Sheet & Tin Plate Co., Pittsburgh, Pa.

Garry Iron & Steel Co., Cleveland, O.
 Goff, Horner & Co., Ltd., Pittsburgh, Pa.
 Parkersburg Iron & Steel Co., Parkersburg, W. Va.
 Republic Iron & Steel Co., Chicago, Ill.
 N. & G. Taylor Co., Chestnut and 3d Sts., Philadelphia, Pa.
 Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.
 Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
 Arthur C. Harvey Co., Boston, Mass.
 McClernan & Orr, Monadnock Block, Chicago, Ill.
 Merchant & Evans Co., Philadelphia, Pa.
 Geo. Nash & Co., 24 S. Clinton St., Chicago, Ill.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
 Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.
 Waite, Ranlet & Co., Boston, Mass.
Sheet Iron Door Caps—
 (See Caps, Door and Window, Metal.)
Sheet Iron Finials—
 (See Finials and Vanes, Metal.)
Sheet Iron, Planished—
 American Sheet & Tin Plate Co., Pittsburgh, Pa.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
 Merchant & Evans Co., Philadelphia, Pa.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
 Waite, Ranlet & Co., Boston, Mass.
Sheet Iron Ware—
 (See Ware, Sheet Iron.)
Sheet Lead—
 E. Phillips & Sons, So. Hanover, Mass.
Sheet Metal, Blanked and Formed—
 (See Stamping, Sheet Metal.)
Sheet Metal Dies, Gauges—
 (See Dies, Gauges.)
Sheet Metal Goods, to Order—

W. J. Clark Co., Salem, O.
 Crosby Co., Buffalo, N. Y.
 Edwards Mfg. Co., Cincinnati, O.
 Erie Stamping & Mfg. Co., Erie, Pa.
 Glen Rock Stamping Co., Glen Rock, Pa.
 Goodwin & Kintz Co., Winsted, Ct.
 Geo. Q. Hill Co., Boston, Mass.
 Janney, Steinmetz & Co., 741 Drexel Bldg., Philadelphia, Pa.
 John R. Keim Mills, Buffalo, N. Y.
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
 Schatz Hardware Mfg. Co., Chappaqua, N. Y.
 Ira B. Smith, Bristol, Ct.
Sheet Metal Perforated and Punched, to Order—
 Harrington & King Perforating Co., 209 N. Union St., Chicago, Ill.
 Hendrick Mfg. Co., Carbondale, Pa.
 Charles Mundt & Sons, 441-447 Pearl St., New York.

Sheet Metal Stamping—
 (See Stamping, Sheet Metal.)
Sheet Metal Work—
 can Spiral Pipe Works, 1173-1201 S. Union St., Chicago, Ill.

Avery Stamping Co., Cleveland, O.
 W. J. Clark Co., Salem, O.
 Drouve Co., Bridgeport, Ct.
 Edwards Mfg. Co., Cincinnati, O.
 Erie Stamping & Mfg. Co., Erie, Pa.
 Gem Mfg. Co., Pittsburgh, Pa.
 Geo. Q. Hill Co., Boston, Mass.
 John R. Keim Mills, Buffalo, N. Y.
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
 Ira B. Smith, Bristol, Ct.
 Standard Pressed Steel Co., 20th and Clearfield Sts., Philadelphia, Pa.
 Turner Brass Works, 44 No. Franklin St., Chicago, Ill.
 W. & S. Mfg. Co., Worcester, Mass.
 Robert Wetherill & Co., Chester, Pa.
 Whitlock Coil Pipe Co., Hartford, Ct.

Sheet Metal Work, Seamless Steel—
 Uehling-Decker Co., Passaic, N. J.
Sheet Mill Doublers—
 (See Doublers, Sheet Mill.)

Sheet Rubber, Unvulcanized—
 New York Belting & Packing Co., 91-93 Chambers St., New York.
Sheet Steel, Cold Rolled—
 Allegheny Steel Co., Pittsburgh, Pa.
 American Sheet & Tin Plate Co., Pittsburgh, Pa.
 American Tube & Stamping Co., Bridgeport, Ct.
 Central Iron & Steel Co., Harrisburg, Pa.
 Henry Diston & Sons, Philadelphia, Pa.
 Garry Iron & Steel Co., Cleveland, O.
 Goff, Horner & Co., Ltd., Pittsburgh, Pa.
 John Illingworth Steel Co., Frankford, Philadelphia, Pa.
 Wm. Jessop & Sons, 91 John St. N. Y.
 Morris & Bailey Steel Co., Pittsburgh, Pa.
 Parkersburg Iron & Steel Co., Parkersburg, W. Va.
 N. & G. Taylor Co., Chestnut and 3d Sts., Philadelphia, Pa.
 S. & C. Wardlow, 35 John St., N. Y.
 Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.
 Youngstown Iron & Steel Roofing Co., Youngstown, O.
 Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
 Denman & Davis, 85 and 87 John St., New York.
 Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.
 Arthur C. Harvey Co., Boston, Mass.
 J. H. Hillman & Son, Pittsburgh, Pa.
 Harold McCalla, 619 N. Front St., Philadelphia, Pa.
 McClernan & Orr, Monadnock Block, Chicago, Ill.
 Merchant & Evans Co., Philadelphia, Pa.
 Geo. Nash & Co., 24 S. Clinton St., Chicago, Ill.
 Patriarche & Bell, 215 Pearl St., N. Y.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
 Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.
 Waite, Ranlet & Co., Boston, Mass.
Sheet Steel, Covered with Nickel—
 Hermann Boker & Co., 101-103 Duane St., New York.

Sheet Steel, Hot Rolled—

Allegheny Steel Co., Pittsburgh, Pa.
American Sheet & Tin Plate Co., Pittsburgh, Pa.
Central Iron & Steel Co., Harrisburg, Pa.
Henry Diston & Sons, Philadelphia, Pa.
Garry Iron & Steel Co., Cleveland, O.
Hobson, Houghton & Co., Ltd., 98 John St., New York.
John Illingworth Steel Co., Frankford, Philadelphia, Pa.
Wm. Jessop & Sons, 91 John St., N. Y.
Parkersburg Iron & Steel Co., Parkersburg, W. Va.
N. & G. Taylor Co., Chestnut and 3d Sts., Philadelphia, Pa.
S. & C. Wardlow, 95 John St., N. Y.
Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.
Youngstown Iron & Steel Roofing Co., Youngstown, O.
Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Hermann Boker & Co., 101-103 Duane St., New York.
Bourne-Fuller Co., Cleveland, O.
Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.
McClerman & Orr, Monadnock Block, Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
Patriarche & Bell, 215 Pearl St., N. Y.
Phillips-Laffitte Co., Pennsylvania Bldg., Philadelphia, Pa.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.

Sheets, Aluminum—

C. W. Leavitt & Co., 220 Broadway, N. Y.
Pittsburgh Reduction Co., Pittsburgh, Pa.
Scovill Mfg. Co., Waterbury, Ct.

Sheets, Aluminum-Steel—

Duplex Metals Co., 208 Fifth Ave., N. Y.

Sheets, Bicycle Tube—

American Sheet & Tin Plate Co., Pittsburgh, Pa.

Sheets, Brass—

(See Brass, Roll and Sheet.)

Sheets, Bronze-Steel—

Duplex Metals Co., 208 Fifth Ave., N. Y.

Sheets, Copper-Steel—

Duplex Metals Co., 208 Fifth Ave., N. Y.

Sheets, Corrugating Machinery—

Niagara Machine & Tool Works, Buffalo, N. Y.
George A. Ohl & Co., Newark, N. J.

Sheets, Crucible Steel—

Henry Diston & Sons, Philadelphia, Pa.
John Illingworth Steel Co., Frankford, Philadelphia, Pa.

Sheets, Curved Corrugated—

American Sheet & Tin Plate Co., Pittsburgh, Pa.

Garry Iron & Steel Co., Cleveland, O.
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.
Youngstown Sheet & Tube Co., Youngstown, O.

Sheets, Double Refined Puddled Iron—

Garry Iron & Steel Co., Cleveland, O.

Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

Youngstown Sheet & Tube Co., Youngstown, O.

Sheets, Electrical

Allegheny Steel Co., Pittsburgh, Pa.
American Sheet & Tin Plate Co., Pittsburgh, Pa.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.

Inland Steel Co., First National Bank Bldg., Chicago, Ill.

Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

J. Wood & Bros. Co., Conshohocken, Pa.

Youngstown Sheet & Tube Co., Youngstown, O.

Sheets, Enameling Steel—

American Sheet & Tin Plate Co., Pittsburgh, Pa.
Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Sheets, Galley—

Bridgeport Brass Co., 253 B'way, N. Y.

Sheets, Galvanized—

American Sheet & Tin Plate Co., Pittsburgh, Pa.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Garry Iron & Steel Co., Cleveland, O.

Inland Steel Co., First National Bank Bldg., Chicago, Ill.

McCullough Iron Co., Wilmington, Del.

Republic Iron & Steel Co., Chicago, Ill.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

N. & G. Taylor Co., Chestnut and 3d Sts., Philadelphia, Pa.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Bourne-Fuller Co., Cleveland, O.

Dennan & Davis, 55-57 John St., N. Y.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.

Walter Graham, Harrison Bldg., Philadelphia, Pa.

Arthur C. Harvey Co., Boston, Mass.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

Harold McCalla, 619 N. Front St., Philadelphia, Pa.

Merchant & Evans Co., Philadelphia, Pa.

John B. Newkirk & Co., Harrison Bldg., Philadelphia, Pa.

Pierson & Co., 29 Broadway, New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Waite, Raulet & Co., Boston, Mass.

Sheets, German Silver—

Riverside Metal Co., Riverside, N. J.

Sheets, Iron and Steel—

Allegheny Steel Co., Pittsburgh, Pa.

American Sheet & Tin Plate Co., Pittsburgh, Pa.
 American Tube & Stamping Co., Bridgeport, Ct.
 Central Iron & Steel Co., Harrisburg, Pa.
 Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
 Henry Disston & Sons, Philadelphia, Pa.
 Fellansbee Bros. Co., Pittsburgh, Pa.
 Garry Iron & Steel Co., Cleveland, O.
 Goff, Horner & Co., Ltd., Pittsburgh, Pa.
 John Illingworth Steel Co., Frankford, Philadelphia, Pa.
 Inland Steel Co., First National Bank Bldg., Chicago, Ill.
 Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
 William Jessop & Son, 91 John St., N. Y.
 McCullough Iron Co., Wilmington, Del.
 Parkersburg Iron & Steel Co., Parkersburg, W. Va.
 Republic Iron & Steel Co., Chicago, Ill.
 Wm. B. Seafie & Sons Co., Pittsburgh, Pa.
 Sligo Iron & Steel Co., Pittsburgh, Pa.
 S. & C. Wardlow, 95 John St., N. Y.
 Alan Wood Iron & Steel Co., 915 Arch St., Philadelphia, Pa.
 J. Wood & Bros. Co., Conshohocken, Pa.
 Youngstown Iron & Steel Roofing Co., Youngstown, O.
 Youngtown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
 Bourne-Fuller Co., Cleveland, O.
 Justice Cox, Jr., & Co., Ltd., Land Title Bldg., Philadelphia, Pa.
 Demman & Davis, 85 and 87 John St., N. Y.
 Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.
 Arthur C. Harvey Co., Boston, Mass.
 J. H. Hillman & Son, Pittsburgh, Pa.
 I. C. Hirsch Iron, Steel & Rail Co., Cincinnati, O.
 C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.
 Ernest Law & Co., 15th and Market Sts., Philadelphia, Pa.
 Henry Lewis & Co., 26 So. 15th St., Philadelphia, Pa.
 Harold McCalla, 619 N. Front St., Philadelphia, Pa.
 Merchant & Evans Co., Philadelphia, Pa.
 Geo. Nash & Co., 24 S. Clinton St., Chicago, Ill.
 Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.
 Pierson & Co., 29 Broadway, New York.
 Horace T. Potts & Co., 316-320 No. 3d St., Philadelphia, Pa.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
 Charles G. Stevens Co., 58-60 So. Canal St., Chicago, Ill.
 Wheelock, Lovejoy & Co., 23 Cliff St., New York.

Sheets, Locomotive Jacket Steel—

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.
 J. Wood & Bros. Co., Conshohocken, Pa.
Sheets, Milk Can Body—
 American Sheet & Tin Plate Co., Pittsburgh, Pa.

Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Sheets, Nickel—
 Hermann Boker & Co., 101-103 Duane St., New York.

Sheets, Open Hearth, Steel—
 Allegheny Steel Co., Pittsburgh, Pa.
 Central Iron & Steel Co., Harrisburg, Pa.
 Goff-Horner & Co., Ltd., Pittsburgh, Pa.
 John Illingworth Steel Co., Frankford, Philadelphia, Pa.

Parkersburg Iron & Steel Co., Parkersburg, W. Va.

N. & G. Taylor Co., Chestnut and Third Sts., Philadelphia, Pa.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngtown Sheet & Tube Co., Youngstown, O.

Sheets, Phosphor Bronze—
 Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.
 Paul S. Reeve & Son, Philadelphia, Pa.
 Riverside Metal Co., Riverside, N. J.

Sheets, Platinum—
 Baker & Co., Inc., Newark, N. J.

Sheets, Polished Steel—
 American Sheet & Tin Plate Co., Pittsburgh, Pa.

Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Youngtown Sheet & Tube Co., Youngstown, O.

Sheets, Roofing—
 American Sheet & Tin Plate Co., Pittsburgh, Pa.

Garry Iron & Steel Co., Cleveland, O.
 Goff, Horner & Co., Ltd., Pittsburgh, Pa.
 McCullough Iron Co., Wilmington, Del.
 Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Wm. B. Seafie & Sons Co., Pittsburgh, Pa.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngtown Sheet & Tube Co., Youngstown, O.

Sheets, Silver-Steel—
 Duplex Metals Co., 208 Fifth Ave., N. Y.

Sheets, Steel, for Deep Stamping—

Allegheny Steel Co., Pittsburgh, Pa.

Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Sheets, Steel, for Electro-Plating—

Allegheny Steel Co., Pittsburgh, Pa.

Sheets, Steel Range—
 Allegheny Steel Co., Pittsburgh, Pa.

American Sheet & Tin Plate Co., Pittsburgh, Pa.

Parkersburg Iron & Steel Co., Parkersburg, W. Va.

N. & G. Taylor Co., Chestnut and Third Sts., Philadelphia, Pa.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngtown Sheet & Tube Co., Youngstown, O.

Sheets, Steel Stamping—
 Allegheny Steel Co., Pittsburgh, Pa.

Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

- Sheets, Stove Body—**
American Sheet & Tin Plate Co., Pittsburgh, Pa.
Parkersburg Iron & Steel Co., Parkersburg, W. Va.
Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.
- Sheets, Tinned Dairy—**
American Sheet & Tin Plate Co., Pittsburgh, Pa.
N. & G. Taylor Co., Chestnut & Third Sts., Philadelphia, Pa.
- Shelf Boxes, Brackets, Pins—**
(See Boxes, Brackets, Pins.)
- Shellac, Pattern Makers'—**
New Castle Paint & Varnish Co., New Castle, Pa.
- Shellers, Corn—**
C. O. Bartlett & Snow Co., Cleveland, O.
A. Buch's Sons Co., Elizabethtown, Pa.
S. Freeman & Sons Mfg. Co., Racine, Wis.
Root Bros. Co., Plymouth, O.
Schreiber & Conchar Mfg. Co., Dubuque, Ia.
R. W. Whitehurst & Co., Norfolk, Va.
- Shells—**
(See Metal Specialties, to order.)
- Shells, Automobile and Marine Boiler—**
Avery Stamping Co., Cleveland, O.
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh.
- Shells, Brass Shot—**
Union Metallic Cartridge Co., Bridgeport, Ct.
Waterbury Brass Co., Waterbury, Ct.
- Shells, Gong—**
(See Gongs.)
- Shells, Paper, Loaded—**
Tower & Lyon Co., 95 Chambers St., New York.
Union Metallic Cartridge Co., Bridgeport, Ct.
- Shells, Paper Shot—**
Union Metallic Cartridge Co., Bridgeport, Ct.
Waterbury Brass Co., Waterbury, Ct.
- Shells, Rifled Bullet—**
J. Stevens Arms & Tool Co., Chicopee Falls, Mass.
- Shells, Rock Crusher—**
Chrome Steel Works, Chrome, N. J.
Taylor Iron & Steel Co., High Bridge, N. J.
- Shells, Roll—**
Blake & Johnson, Waterbury, Ct.
Chrome Steel Works, Chrome, N. J.
Taylor Iron & Steel Co., High Bridge, N. J.
- Shells, Seamless Drawn Steel, for Ordnance—**
Avery Stamping Co., Cleveland, O.
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
Pressed Steel Tank Co., Milwaukee, Wis.
- Shelves, Steel Library—**
Berger Mfg. Co., Canton, O.
- Shelves, Stove Pipe—**
Schreiber & Conchar Mfg. Co., Dubuque, Ia.
(See also Household Articles.)
- Shelves, Stove Pipe, Wire—**
(See Household Articles, Wire.)
- Shelving, Hardware Store—**
J. D. Warren Mfg. Co., Chicago, Ill.
- Shelving, Sheet Steel—**
Merritt & Co., 1024-1025 Ridge Ave., Philadelphia, Pa.
Pawling & Harnischfeger, Milwaukee, Wis.
- Shepherds' Crooks—**
(See Crooks, Shepherds'.)
- Shifters, Belt—**
(See Belt Shifters.)
- Shims—**
(See Wedges and Shims.)
- Shingle and Heading Machines—**
(See Heading and Shingle Machines.)
- Shingles, Metallic—**
Berger Mfg. Co., Canton, O.
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
Edwards Mfg. Co., Cincinnati, O.
Merchant & Evans Co., Philadelphia, Pa.
Scott & Co., Cincinnati, O.
- Shingling Hatchets—**
(See Hatchets, Shingling, Half, &c.)
- Ship Anchors, Pumps—**
(See Anchors, Pumps.)
- Ship Carpenters' Tools—**
(See Tools, Ship Carpenters'.)
- Ship Chandlery Hardware—**
Boston & Lockport Block Co., Boston, W. & J. Tiebout, 115 Chambers St., New York.
- Ship Locks and Latches—**
(See Locks and Latches.)
- Shipbuilders—**
American Bridge Co. of New York, 42 Broadway, New York.
Newport News Shipbuilding & Dry Dock Co., Newport News, Va.
- Shipyard Machinery—**
American Die & Tool Co., Reading, Pa.
Beretsch & Co., Cambridge City, Ind.
Brown Hoisting Machinery Co., Cleveland, O.
Browning Machinery Co., Cleveland, O.
Detrick & Harvey Machine Co., Baltimore.
Esper-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.
Hilles & Jones Co., Wilmington, Del.
Niles-Bement-Pond Co., 111 Broadway, New York.
Geo. A. Ohl & Co., Newark, N. J.
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.
Wickes Bros., Saginaw, Mich.
- MERCHANTS.**
Fairbanks Co., 416 Broome St., New York.
Hill, Clarke & Co., Boston, Mass.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
Vandyck, Churchill Co., 8 Dey St., N. Y.
- Shoddy Machinery—**
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Shoe Blacking, Brushes, &c.—**
(See Blacking, Brushes, &c.)
- Shoe Hook and Eyelet Setting Machines—**
F. H. Smith Mfg. Co., 18-30 W. Randolph St., Chicago, Ill.
- Shoe Horns—**
(See Horns, Silver Plated.)
- Shoe Nail Machines—**
(See Nail Machines, Shoe.)

Shoe Peg Machinery—

Humphrey Machine Co., Keene, N. H.

Shoes, Brake—

Barbour-Stockwell Co., Cambridgeport,

Mass.

Bethlehem Foundry & Machine Co.,

South Bethlehem, Pa.

Sessions Foundry Co., Bristol, Ct.

Standard Car & Foundry Co., Pittsburgh.

Shoes, Conductor Pipe—

Kramer Bros. Foundry Co., Dayton, O.

Shoes, Horse and Mule—

American Horse Shoe Co., Phillipsburg,

N. J.

Burden Iron Co., Troy, N. Y.

Phoenix Horse Shoe Co., Poughkeepsie,

N. Y.

Rhode Island Perkins Horse Shoe Co.,

Providence, R. I.

Richmond Forgings Corporation, Rich-

mond, Va.

Standard Horse Shoe Co., Boston, Mass.

Shoes, Horse, Rubber—

Whitman & Barnes Mfg. Co., Chicago.

Shoes, O—

Millers Falls Co., 28 Warren St., N. Y.

Scranton Forging Co., Scranton, Pa.

Walter W. Woodruff & Sons Co., Mount

Carmel, Ct.

Shoes, File—

Janney, Steinmetz & Co., Drexel Bldg.,

Philadelphia, Pa.

Shoes, Sleigh—

Pleuger & Henger Mfg. Co., St. Louis.

Shoes, Snow—

Wrightsville Hardware Co., Wrightsville,

Pa.

Shoes, Trunk—

J. H. Sessions & Son, Bristol, Ct.

Shoes, Wagon Lock—

Pleuger & Henger Mfg. Co., St. Louis.

Shoes, Wooden—

E. B. Estes & Sons, 45-47 John St., N. Y.

Shoos, Box—

E. B. Estes & Sons, 45-47 John St., N. Y.

Shop Furniture—

(See Furniture, Metal.)

Shop Pans—

(See Pans, Shop.)

Shot, Copper, Purified—

Riverside Metal Co., Riverside, N. J.

Shot Guns, Pouches, Spread-**ers—**

(See Guns, Pouches, Spreaders.)

Shoulder Hooks—

(See Hooks, Cup and Shoulder.)

Shovel and Spade D-Handle**Machinery—**

Defiance Machine Works, Defiance, O.

Shovel and Spade D-Handle**Tops—**

(See Tops, D-Handle.)

Shovel Brackets, Handles,**Scrapers—**

(See Brackets, Handles, Scrapers.)

Shovel Machinery—

Niagara Machine & Tool Works, Buffalo,

N. Y.

Shovels and Scoops, Fur-**nace—**

Avery Stamping Co., Cleveland, O.

W. F. Clark Co., Salem, O.

Fairbanks Co., 416 Broome St., New York.

John H. Graham & Co., 113 Chambers

St., New York.

E. Kohler & Co., Canton, O.

Wm. H. Co., Cleveland, O.

Shovels and Spades—

Avery Stamping Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

John H. Graham & Co., 113 Chambers

St., New York.

Hubbard & Co., Pittsburgh, Pa.

F. E. Kohler & Co., Canton, O.

Shovels and Spades, Boys'—

Avery Stamping Co., Cleveland, O.

Shovels and Spades, Tilling**or Ditching—**

Avery Stamping Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

John H. Graham & Co., 113 Chambers

St., New York.

Iwan Bros., Streator, Ill.

New Mfg. Co., Canton, O.

Shovels and Spoons, Pole**Hole—**

Avery Stamping Co., Cleveland, O.

John H. Graham & Co., 113 Chambers

St., New York.

Shovels, Brass and Bronze—

Avery Stamping Co., Cleveland, O.

Shovels, Brick and Clay—

Avery Stamping Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

Shovels, Collier—

Avery Stamping Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

John H. Graham & Co., 113 Chambers

St., New York.

Shovels, Excavating—

Avery Stamping Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Shovels, Irrigation—

Avery Stamping Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

Shovels, Mining—

Avery Stamping Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

John H. Graham & Co., 113 Chambers

St., New York.

Shovels, Molders—

Avery Stamping Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

John H. Graham & Co., 113 Chambers

St., New York.

S. Obermayer Co., Cincinnati, O.

Osborn Mfg. Co., Cleveland, O.

Shovels, Ore—

Avery Stamping Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

John H. Graham & Co., 113 Chambers

St., New York.

Shovels, Ox—

Fairbanks Co., 416 Broome St., New York.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Shovels, Power Grain—

H. W. Caldwell & Son Co., Western Ave.

and 17th St., Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.

Shovels, Railroad Tamping—

Avery Stamping Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

John H. Graham & Co., 113 Chambers

St., New York.

Shovels, Sewer—

Avery Stamping Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.

Shovels, Snow—

Avery Stamping Co., Cleveland, O.

John H. Graham & Co., 113 Chambers

St., New York.

Hubbard & Co., Pittsburgh, Pa.

F. E. Kohler & Co., Canton, O.

- Shovels, Special, to Order—**
Avery Stamping Co., Cleveland, O.
- Shovels, Steam—**
Thomas Carlin's Sons Co., Allegheny, Pa.
C. W. Hunt Co., West New Brighton,
N. Y.
- MERCHANTS.**
Thomas P. Conard & Co., 119 S. 4th St.,
Philadelphia, Pa.
Dallett & Co., Harrison Bldg., Philadel-
phia, Pa.
A. V. Kaiser & Co., 222 S. Third St.,
Philadelphia, Pa.
- Shovels, Steam, Teeth and
Lips for—**
Taylor Iron & Steel Co., High Bridge,
N. J.
- Shovels, Stove—**
W. J. Clark Co., Salem, O.
New York Stamping Co., Brooklyn, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.
- Republic Metalware Co., Buffalo, N. Y.
Russell & Erwin Mfg. Co., 43-47 Cham-
bers St., New York.
- Shovels, Trucks, Pokers, Fire
Sets, &c.—**
Fanner Mfg. Co., Cleveland, O.
Murdock-Shaw Co., Boston, Mass.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.
- Russell & Erwin Mfg. Co., 43-47 Cham-
bers St., New York.
- Shovels, Tunnel—**
Avery Stamping Co., Cleveland, O.
- Shovels, Wood—**
John Sommer's Son, Newark, N. J.
- Showcase Catches, Sup-
ports—**
(See Catches, Supports.)
- Shower Baths—**
(See Baths, Shower.)
- Shredders, Dry Fodder—**
Silver Mfg. Co., Salem, O.
- Shredders, Vegetable—**
Henry Disston & Sons, Philadelphia, Pa.
National Saw Co., Newark, N. J.
- Shrinkers, Tire—**
Boynton & Plummer, Worcester, Mass.
Champion Blower & Forge Co., Lancas-
ter, Pa.
Wiley & Russell Mfg. Co., Greenfield,
Mass.
- Shuts, Cold—**
Standard Chain Co., Pittsburgh, Pa.
- Shutter Bars, Bolts, &c.—**
(See Bars, Bolts, &c.)
- Shutter Workers—**
(See Workers, Shutter.)
- Shutters, Iron and Steel—**
(See Doors and Shutters, Iron and Steel.)
- Sickles—**
(See Hooks, Grass.)
- Side Pulleys—**
(See Pulleys, Side.)
- Sidewalk Cleaners, Hoists—**
(See Cleaners, Hoists.)
- Sidewalk Foundations—**
Youngtown Iron & Steel Roofing Co.,
Youngtown, O.
- Siding, Iron and Steel—**
(See Ceiling and Siding, Iron and Steel.)
- Sieves—**
(See Riddles and Sieves.)
- Sieves, Ash—**
Ludlow-Saylor Wire Co., St. Louis, Mo.
Wickwire Bros., Cortland, N. Y.
- Sieves, Flour—**
Estey Wire Works Co., 59 Fulton St.,
N. Y.
- Gilbert & Bennett Mfg. Co., 277 Broad-
way, New York.
- Ludlow-Saylor Wire Co., St. Louis, Mo.
Republic Metalware Co., Buffalo, N. Y.
Wickwire Bros., Cortland, N. Y.
- Sieves, Laboratory Testing—**
Howard & Morse, 45 Fulton St., N. Y.
- Sifters, Ash—**
Edward Darby & Sons, 233-235 Arch St.,
Philadelphia, Pa.
- Hill Dryer Co., Worcester, Mass.
W. S. Tyler Co., Cleveland, O.
Wright Wire Co., Worcester, Mass.
- Sifters, Flour—**
Edward Darby & Sons, 233-235 Arch St.,
Philadelphia, Pa.
- Glen Rock Stamping Co., Glen Rock, Pa.
Farber Wire Goods Co., Worcester, Mass.
Republic Metalware Co., Buffalo, N. Y.
Wire Goods Co., Worcester, Mass.
- Sifters, Sand—**
Bancroft & Co., Fifth & Chestnut Sts.,
Philadelphia, Pa.
Barbour-Stockwell Co., Cambridgeport,
Mass.
- Byram & Co., Inc., Detroit, Mich.
Chicago Pneumatic Tool Co., Fisher
Bldg., Chicago, Ill.
- Erdie Perforating Co., Rochester, N. Y.
Gould & Eberhardt, Newark, N. J.
Harrington & King Perforating Co., 224
N. Union St., Chicago, Ill.
- Hendrick Mfg. Co., Carbondale, Pa.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Charles Mundt & Sons, 441-447 Pearl St.,
New York.
- Northern Engineering Works, Detroit,
Mich.
- S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., Philadelphia, Pa.
Henry Perkins Co., Bridgewater, Mass.
Whiting Foundry Equipment Co., Harvey,
Ill.
- Sifting Machines, Hand and
Power—**
Estey Wire Works Co., 59 Fulton St.,
N. Y.
- Sights, Gun, Rifle, &c.—**
J. Stevens Arms & Tool Co., Chicopee
Falls, Mass.
- Sign Letters—**
(See Letters, Cast Iron Sign.)
- Sign or Engravers' Brass—**
(See Brass, Sign or Engravers.)
- Signal Bells, Cord, Lamps—**
(See Bells, Cord, Lamps.)
- Signaling Apparatus, Elec-
tric—**
General Electric Co., Schenectady, N. Y.
- Signals, Railroad—**
Allentown Rolling Mills, Allentown, Pa.
- Signs, Brass—**
Schwerdtle Stamp Co., Bridgeport, Ct.
- Signs, Enamelled Steel—**
Alfred Field & Co., 93 Chambers St.,
New York.
- Signs, Lithographed Metal
Advertising—**
New York Metal Ceiling Co., 537-539 W.
24th St., New York.
- Signs, Sheet Metal—**
Glen Mfg. Co., Ellwood City, Pa.
Schwerdtle Stamp Co., Bridgeport, Ct.

Signs, Wire, &c.—

Buffalo Wire Works Co., Buffalo, N. Y.
Edward Darby & Sons, 233-235 Arch St.,
Philadelphia, Pa.

Glen Mfg. Co., Ellwood City, Pa.
Ludlow-Saylor Wire Co., St. Louis, Mo.

Silico-Spiegel—
Geo. G. Blackwell, Sons & Co., Liver-
pool, England.

MERCHANTS.

Frank Samuel, Harrison Bldg., Philadel-
phia, Pa.

Silicon, Carbide of—
Carborundum Co., Niagara Falls, N. Y.

Silicon, Copper—
Roessler & Hasslacher Chemical Co., 100
William St., New York.

Sills and Lintels, Building—
(See Structural Material.)

Silver—
Baker & Co., Inc., Newark, N. J.

Silver, German—
(See German Silver.)

Silver Plated Brushes—
(See Brushes, Silver Plated.)

Silver Plated Tableware—
(See Spoons and Forks, Silver and Plated.)

Silver Solder, Tubing—
(See Solder, Tubing.)

Single and Double Trees.

Plow and Wagon—
Youngstown Iron & Steel Roofing Co.,
Youngstown, O.

**Sink Bolts, Cleaners, Strain-
ers—**
(See Bolts, Cleaners, Strainers.)

Sinkers, Fish Line—
Enterprise Mfg. Co., Akron, O.

Sinks, Cast—
Barnes Mfg. Co., Mansfield, O.

Bethlehem Foundry & Machine Co., So.
Bethlehem, Pa.

Central Foundry Co., 116 Nassau St.,
New York.

Goulds Mfg. Co., Seneca Falls, N. Y.

Humphreys Mfg. Co., Mansfield, O.

B. F. Sturtevant Co., Boston, Mass.

Sinks, Enamelled—
Barnes Mfg. Co., Mansfield, O.

Sinks, Wrought Steel—
Kilbourne & Jacobs Mfg. Co., Colum-
bus, O.

Lalance & Grosjean Mfg. Co., 19 Cliff St.,
New York.

Siphons—
Crosby Steam Gage & Valve Co., Boston.

Eynon-Evans Mfg. Co., 1507 Clearfield
St., Philadelphia, Pa.

E. W. Vanduzen Co., Cincinnati, O.

Skate Woods—
E. B. Estes & Sons, 45-47 John St., N. Y.

Skates, Coasting—
Handy Things Co., Ludington, Mich.

Skates, Ice—
Crosby Co., Buffalo, N. Y.

John H. Graham & Co., 113 Chambers
St., New York.

Martin Skate Co., Boston, Mass.

Union Hardware Co., Torrington, Ct.

Samuel Winslow Skate Mfg. Co., Wor-
cester, Mass.

Skates, Roller—
M. C. Henley, Richmond, Ind.

Richard Mfg. Co., Bloomsburg, Pa.

Union Hardware Co., Torrington, Ct.

Samuel Winslow Skate Mfg. Co., Wor-
cester, Mass.

**Skein Threading and Mill-
ing Machines, Wagon—**
National Machinery Co., Tiffin, O.

Skeins, Thimble and Boxes—
A. C. Williams, Ravenna, O.

Skelp, Iron and Steel—
Carnegie Steel Co., Pittsburgh, Pa.

Harrisburg Pipe & Pipe Bending Co.,
Harrisburg, Pa.

La Belle Iron Works, Steubenville, O.

Seidel & Hastings Co., Wilmington, Del.

Shenango Iron & Steel Co., Pittsburgh, Pa.

Sligo Iron & Steel Co., Pittsburgh, Pa.

Youngstown Sheet & Tube Co., Youngs-
town, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.

Cabene & Co., Real Estate Trust Bldg.,
Philadelphia, Pa.

C. B. Houston & Co., Girard Bldg.,
Philadelphia, Pa.

McClerman & Orr, Monadnock Block, Chi-
cago, Ill.

Joseph T. Ryerson & Son, 18-22 Milwau-
kee Ave., Chicago, Ill.

Charles G. Stevens Co., 60 S. Canal St.,
Chicago, Ill.

Skewers, Burlap—
E. B. Estes & Sons, 45-47 John St., N. Y.

Skewers, Butchers'—
E. B. Estes & Sons, 45-47 John St., N. Y.

Parker Wire Goods Co., Worcester, Mass.

Skids—
Boston & Lockport Block Co., Boston.

Fairbanks Co., 416 Broome St., N. Y.

Kilbourne & Jacobs Mfg. Co., Colum-
bus, O.

Skillets, Copper—
(See Ware, Copper.)

Skillets, Steel—
(See Ware, Hollow Steel.)

Skimmers—
(See Kitchen Articles, Wire.)

**Skimmers and Stirrers, Cru-
cible—**

McCullough-Dalzell Crucible Co., Pitts-
burgh, Pa.

Skirt Hanger—
(See Hangers, Garment and Trousers.)

Skylights—
E. B. Badger & Sons Co., Boston, Mass.

Berger Mfg. Co., Canton, O.

Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.

G. Drouve Co., Bridgeport, Ct.

Edwards Mfg. Co., Cincinnati, O.

Skylights, Marine—
A. S. Morss Co., Boston, Mass.

Slabbers, Log—
Humphrey Machine Co., Keene, N. H.

Lane Mfg. Co., Montpelier, Vt.

**Slashers, Steam Exhausting
Apparatus for—**

B. F. Sturtevant Co., Boston, Mass.

Slats, Asbestos—
H. W. Johns-Manville Co., 100 William
St., New York.

Slaters' Tools—
(See Tools, Slaters'.)

Slats, Louver—
Youngstown Iron & Steel Roofing Co.,
Youngstown, O.

Youngstown Sheet & Tube Co., Youngs-
town, O.

Slaw Cutters—
(See Cutters, Slaw.)

Sledges and Hammers—
Hubbard & Co., Pittsburgh, Pa.
Heller Bros. Co., Newark, N. J.
Solid Steel Tool & Forge Co., Tarentum, Pa.
Sleds, Bob and Child's—
Wagner Mfg. Co., Cedar Falls, Ia.
Sleeves, Ball Bearing Loose Pulley—
Pressed Steel Mfg. Co., Ridge Ave. and Willow St., Philadelphia, Pa.
Sleeves, Dredging—
New York Belting & Packing Co., 91-93 Chambers St., New York.
Sleeves, Plumbago—
McCullough-Dalzell Crucible Co., Pittsburgh, Pa.
Sleeves, Roller Bearing—
Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
Sleeves, Taper Drill—
Keystone Mfg. Co., Buffalo, N. Y.
Sleigh Bells, Shoes—
(See Bells, Shoes.)
Sleigh Bell Straps—
(See Straps, Sleigh Bell.)
Sleigh Shoe Bolts—
(See Bolts, Sleigh Shoe.)
Slicers, Bacon—
Handy Things Co., Ludington, Mich.
Slicers, Beef—
(See Cutters, Smoked Beef.)
Slicers, Bread—
Handy Things Co., Ludington, Mich.
Slicers, Vegetable and Fruit—
E. C. Atkins & Co., Indianapolis, Ind.
Henry Disston & Sons, Philadelphia, Pa.
Enterprise Mfg. Co., Philadelphia, Pa.
Handy Things Co., Ludington, Mich.
C. E. Jennings & Co., 42 Murray St., New York.
Landers, Frary & Clark, New Britain, Ct.
Parker Wire Goods Co., Worcester, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Slicks, Carpenters'—
Buck Bros., Millbury, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Slide Rests—
L. & I. J. White Co., Buffalo, N. Y.
(See Rests, Slide.)
Slides, Breast Strap—
Fanner Mfg. Co., Cleveland, O.
Rock River Mfg. Co., Dixon, Ill.
Slides, Desk—
Stanley Works, New Britain, Ct.
Slides, Rope—
(See Clamps and Slides, Rope.)
Slides, Tent—
E. B. Estes & Sons, 45-47 John St., N. Y.
Sling Chains—
(See Chains, Sling.)
Slings, Hay—
(See Haying Tools.)
Slitting Machines, Gang—
Blake & Johnson, Waterbury, Ct.
Niagara Machine & Tool Works, Buffalo, N. Y.
Slitting Machines, Metal—
(See Also Shears, Slitting.)
American Tube & Stamping Co., Bridgeport, Ct.
Badger State Machine Co., Janesville, Wis.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Kimball Bros., Sprague, Brockton, Mass.
Chas. Leffler & Co., Brooklyn, N. Y.
Niagara Machine & Tool Works, Buffalo, New York.
Niles-Bement-Pond Co., 111 Broadway, New York.
George A. Ohl & Co., Newark, N. J.
Henry Perkins Co., Bridgewater, Mass.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
Slitting Machines, Paper—
Hobbs Mfg. Co., Worcester, Mass.
Slitting Saws—
(See Saws, Slitting.)
Slotted Head Bolts—
(See Bolts, Special.)
Slotters, Bench, Screw—
Grant Mfg. & Machine Co., Bridgeport, Ct.
Slotting and Slabbing Machines, Bicycle Nipple—
Garvin Machine Co., Spring & Varick Sts., New York.
E. J. Manville Mach. Co., Waterbury, Ct.
Slotting Attachments for Milling Machines—
Brown & Sharpe Mfg. Co., Providence, R. I.
Slotting Machines—
Betts Machine Co., Wilmington, Del.
Garvin Machine Co., Spring & Varick Sts., New York.
Harvey Hubbell, Bridgeport, Ct.
Hendey Machine Co., Torrington, Ct.
National-Acme Mfg. Co., Cleveland, O.
New Haven Mfg. Co., New Haven, Ct.
Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.
Niles-Bement-Pond Co., 111 Broadway, New York.
Wm. Sellers & Co., Inc., Philadelphia.
Slotting Machines, Locomotive Frame—
Niles-Bement-Pond Co., 111 Broadway, New York.
Slotting Machines, Screw Head—
Brown & Sharpe Mfg. Co., Providence, R. I.
Asa S. Cook Co., Hartford, Ct.
Garvin Machine Co., Spring & Varick Sts., New York.
Grant Mfg. & Machine Co., Bridgeport, Ct.
Hartford Machine Screw Co., Hartford, Ct.
Harvey Hubbell, Bridgeport, Ct.
E. J. Manville Machine Co., Waterbury, Ct.
National-Acme Mfg. Co., Cleveland, O.
Patt & Whitney Co., Hartford, Ct.
Dwight Slate Machine Co., Hartford, Ct.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
Slotting Screws, to Order—
Blake & Johnson, Waterbury, Ct.
Henry Disston & Sons, Philadelphia, Pa.
Slotting Tools—
Armstrong Bros. Tool Co., 617 Austin Ave., Chicago, Ill.
Sloyd Knives—
(See Knives, Wood Carvers.)

- Smelting Process for Iron, &c.**
R. H. Wolf, 445 Broadway, New York.
- Smoke Test Machines—**
Vanderman Plumbing & Heating Co., Willimantic, Ct.
- Smokers' Sets, Aluminum—**
Scovill Mfg. Co., Waterbury, Ct.
- Smokestacks—**
(See Chimneys, Steel.)
- Snap Gauges, Gauge Blanks—**
(See Gauges, Blanks.)
- Snaps and Swivels, Halter, Harness, &c.**
Covert Mfg. Co., Troy, N. Y.
Oneida Community, Kenwood, N. Y.
- Snaps, Halter, Harness, Rope, &c.**
Ashtabula Mfg. Co., Ashtabula, O.
Billings & Spencer Co., Hartford, Ct.
Bridgeport Chain Co., Bridgeport, Ct.
Covert Mfg. Co., Troy, N. Y.
H. C. Jenkinson & Co., Newark, N. J.
Oneida Community, Ltd., Kenwood, N. Y.
- Snaps, Safety Lock, Wire—**
Wire Goods Co., Worcester, Mass.
- Snatch Blocks—**
(See Blocks, Deck and Snatch.)
- Snaths—**
American Fork & Hoe Co., Cleveland, O.
- Sniffing Valves—**
(See Valves, Sniffing.)
- Snips, Cotton Bale—**
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Snips, Tinners—**
(See Shears and Snips, Tinners.)
- Snow Guards—**
(See Guards, Snow and Ice.)
- Snow Shovels—**
(See Shovels, Snow.)
- Soap Dishes, Trays—**
(See Dishes, Trays.)
- Soapstone Griddles—**
(See Griddles, Soapstone.)
- Socket Bolts, Hooks, Wrenches—**
(See Bolts, Hooks, Wrenches.)
- Socket Bushings and Hooks, Electric—**
(See Electric Light Fittings.)
- Sockets, Drill—**
Billings & Spencer Co., Hartford, Ct.
Cleveland Twist Drill Co., Cleveland, O.
Keystone Mfg. Co., Buffalo, N. Y.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Oneida Community, Ltd., Kenwood, N. Y.
Standard Tool Co., Cleveland, O.
Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
Whitman & Barnes Mfg. Co., Chicago.
- Sockets, Flang Pole—**
W. & J. Tibbott, 118 Chambers St., N. Y.
- Sockets, Shaft, Yoke, Pole and Whiffletree—**
(See Tips or Sockets, Shaft, Yoke, Pole and Whiffletree.)
- Sockets, Whip—**
E. B. Estes & Sons, 45-47 John St., N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Sockets, Wire Rope—**
Broderick & Bascom Rope Co., St. Louis.
Keystone Drop Forge Works, Chester, Pa.
L. Leachan & Sons Rope Co., St. Louis.
W. & Holden, Barre, Vt.
- Soda Tanks—**
(See Tanks, Gas, Air, Soda, &c.)
- Soda Water Spoons—**
(See Spoons, Soda, Silver Plated.)
- Sofas, Office—**
(See Couches and Sofas, Office.)
- Softening Systems, Water—**
Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh.
- Solder—**
Charles H. Besly & Co., 15-21 Clinton St., Chicago, Ill.
Edwards Mfg. Co., Cincinnati, O.
Empire Metal Co., Syracuse, N. Y.
Thea Hertz Metal Co., St. Louis, Mo.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Merchant & Evans Co., Philadelphia, Pa.
Charles Millar & Son Co., Utica, N. Y.
Pittsburgh White Metal Co., Pittsburgh.
H. M. Shimer & Co., 19th St. & Washington Ave., Philadelphia, Pa.
N. & G. Taylor Co., Chestnut and 3d Sts., Philadelphia, Pa.
- Solder, Aluminum—**
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
- Solder, Braziers—**
Bridgeport Brass Co., 233 E'way, N. Y.
Henry Diaston & Sons, Philadelphia, Pa.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Merchant & Evans Co., Philadelphia, Pa.
Scovill Mfg. Co., Waterbury, Ct.
H. M. Shimer & Co., 19th St. & Washington Ave., Philadelphia, Pa.
- Solder, Silver—**
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
- Soldering Copper Handles—**
(See Handles, Soldering Copper.)
- Soldering Coppers, Furnaces, Sets—**
(See Coppers, Furnaces, Sets.)
- Soldering Machines—**
K. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Chas. Lefter & Co., Brooklyn, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
- Soles and Soling, Rubber—**
New York Belting & Packing Co., 91-93 Chambers St., New York.
- Soles, Shoe—**
G. B. Weiss & Son, 299 E. 42d St., N. Y.
- Solid Box Vises—**
(See Vises, Solid Box.)
- Solid Metal Spoons and Forks—**
(See Spoons and Forks, Solid Metal.)
- Sounding Leads—**
(See Leads, Sounding.)
- Sounding Machines and Sounders, Marine—**
Riggs & Bro., 310 Market St., Philadelphia.
- Sowers, Seed—**
S. Freeman & Sons Mfg. Co., Racine, Wis.
Goodell Co., Antrim, N. H.
- Spacing Tables—**
Hilles & Jones Co., Wilmington, Del.
Wm. Sellers & Co., Inc., 1800 Hamilton St., Philadelphia, Pa.

Spacing Tables, Automatic—
Wm. Sellers & Co., Inc., 1600 Hamilton
Philadelphia, Pa.

Spade Handles—
(See Handles, Fork, Spade, &c.)

Spades—
(See Shovels and Spades.)

Spades, Butter—
Goodell Co., Antrim, N. H.

Spading Forks—
(See Forks, Hay, Manure, Spading, &c.)

Span Wire—
(See Wires, Electrical.)

Spanners, Carriage—
J. H. Williams & Co., Brooklyn, N. Y.

Spark Arresters—
(See Arresters, Spark.)

**Sparkling Points for Inter-
nal Combustion Engine—**

Baker & Co., Inc., Newark, N. J.
American Cutlery Co., Chicago, Ill.

Spatulas—
Landers, Fry & Clark, New Britain, Ct.
Wilkinson Shear & Cutlery Co., Reading,
Pa.

Speaking Tube Hardware—
Berger Mfg. Co., Canton, O.
W. R. Ostrander & Co., 22 Dey St.,
New York.

Speaking Hardware Co., Reading, Pa.

Speaking Tubes—
(See Tubes, Speaking.)

Spears, Fish—
Arcade Mfg. Co., Freeport, Ill.
Dane, Stoddard & Co., Boston, Mass.
Enterprise Mfg. Co., Akron, O.

Special Machinery—
Adriance Machine Works, Brooklyn, N. Y.
Alliance Machine Co., Alliance, O.
Automatic Machine Co., Bridgeport, Ct.
Baird Machine Co., Oakville, Ct.
Barbour-Stockwell Co., Cambridgeport,
Mass.

Barry & Zecher Co., Lancaster, Pa.
Birdsboro Steel Foundry & Machine Co.,
Birdsboro, Pa.

Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Colonial Foundry & Machine Co., So.
Norwalk, Ct.

Asa S. Cook Co., Hartford, Ct.
W. P. Davis Machine Co., Rochester, N. Y.
J. H. Dawson Machinery Co., 39-41 S.
Canal St., Chicago, Ill.

Detrick & Harvey Machine Co., Balti-
more, Md.

Earle Gear & Machine Co., Oxford and
Mascher Sts., Philadelphia, Pa.

Eastern Machinery Co., New Haven, Ct.
Chas. F. Elmes Engineering Works, 253-
259 Fulton St., Chicago, Ill.

Espen-Lucas Machine Co., Broad and
Noble Sts., Philadelphia, Pa.

Fawcens Machine Co., Pittsburgh, Pa.
Foote Bros. Gear & Machine Co., 24-30
S. Clinton St., Chicago, Ill.

Franklin Mfg. Co., New Haven, Ct.
Wm. Gaylan & Son, Inc., 45-51 Rose St.,
New York.

Garvin Machine Co., Spring & Varick
Sts., New York.

Geometric Tool Co., New Haven, Ct.
Gould & Eberhardt, Newark, N. J.

Grant Mfg. & Machine Co., Bridgeport,
Ct.

H. Harrington, Son & Co. (Inc.), Phila-
delphia, Pa.

Hartford Machine Screw Co., Hartford, Ct.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Hill, Clarke & Co., Boston, Mass.
Hoefer Mfg. Co., Freeport, Ill.

Humphrey Machine Co., Keene, N. H.
I. H. Johnson, Jr., Co., Inc., 1422 Callow-
hill St., Philadelphia, Pa.

R. E. Kidder, Worcester, Mass.
E. Konigslog Stamping & Tool Works,
Cleveland, O.

Chas. E. Leffler & Co., Brooklyn, N. Y.
Lough-Scott Co., 26 Cortlandt St., N. Y.

John Loyd Co., 558 Water St., N. Y.
McClellan & Orr, Monadnock Block, Chi-
cago, Ill.

Marshall & Husehart Machinery Co., 62
S. Canal St., Chicago, Ill.

Morgan Construction Co., Worcester, Mass.
Frank Mossberg Co., Attleboro, Mass.

Mossberg Wrench Co., Central Falls, R. I.
Mount Carmel Bolt Co., Mt. Carmel, Ct.

Mutual Mfg. Co., Bridgeport, Ct.
Myrick Machine Co., Olean, N. Y.

National Machinery Co., Tiffin, O.
National Sewing Machine Co., Belvidere,
Ill.

Nazel Engineering & Machine Works,
Ridge Ave. & 11th St., Philadelphia.

New Machine Co., Danbury, Ct.
Niles-Bement-Pond Co., 111 Broadway,
New York.

A. H. Nilson Machine Co., Bridgeport,
Ct.

R. D. Nuttall Co., Pittsburgh, Pa.
Nutter, Barnes & Co., Boston, Mass.

George A. Ohl & Co., Newark, N. J.
Poole Engineering & Machine Co., Balti-
more, Md.

Pratt & Whitney Co., Hartford, Ct.
Quincy, Manchester, Sargent Co., Old
Colony Bldg., Chicago, Ill.

Richard Mfg. Co., Bloomsburg, Pa.
Richmond Forgings Corporation, Rich-
mond, Va.

J. M. Robinson Mfg. Co., Cincinnati, O.
Roversford Foundry & Machine Co.,
Roversford, Pa.

Wm. Sellers & Co., Inc., Philadelphia.
F. B. Shuster Co., New Haven, Ct.

Sigourney Tool Co., Hartford, Ct.
Stiles-Morse Co., Western Union Bldg.,
Chicago, Ill.

Stoeber Foundry & Mfg. Co., Myerstown,
Pa.

Stow Flexible Shaft Co., 26th & Callow-
hill Sts., Philadelphia, Pa.

Thornton Machinery Co., Providence, R. I.
Turner Brass Works, Franklin and Michi-
gan Sts., Chicago, Ill.

V. & O. Press Co., Brooklyn, N. Y.
Warner & Swasey Co., Cleveland, O.

Warsaw Elevator Co., Warsaw, N. Y.
Washburn Shops, Worcester, Mass.

Waterbury Parcel Foundry & Machine
Co., Waterbury, Ct.

Watson-Stillman Co., 46 Dey St., N. Y.
Webster & Perks Tool Co., Springfield, O.

Wellman-Seaver-Morgan Co., Cleveland, O.
Wickes Bros., Saginaw, Mich.

W. A. Wilson Machine Co., Rochester,
N. Y.

Special Screws, Wire—
(See Screws, Special.)

**Special Shapes on Tubular
Form**

Standard Welding Co., Cleveland, O.

Specialties to Order, Metal—

(See Metal Specialties to Order.)

Specialties, Turned Metal—

(See Metal Work, Turned.)

Specialties, Wooden—

(See Wooden Specialties.)

Spelter—

Theo. Hertz Metal Co., St. Louis, Mo.

Illinois Zinc Co., Peru, Ill.

Matthiessen & Hegeler Zinc Co., La

Salle, Ill.

Sandoval Zinc Co., 122 N. Peoria St., Chi-

cago, Ill.

H. M. Shimer & Co., 19th St. & Wash-

ington Ave., Philadelphia, Pa.

MERCHANTS.

American Metal Co., 52 Broadway, N. Y.

Hendricks Bros., 49 Cliff St., New York.

Merchant & Evans Co., Philadelphia, Pa.

Arthur T. Rutter & Co., 256 Broadway,

New York.

J. J. Ryan & Co., 68-74 W. Monroe St.,

Chicago, Ill.

Spelter, Brazing—

(See Brass, Brazing.)

Spice Cans, Mills—

(See Cans, Mills.)

Spiders, Steel—

(See Wares, Hollow Steel.)

Spiegel-eisen—

Carnegie Steel Co., Pittsburgh, Pa.

James Lee & Co., 76 William St., N. Y.

Spigots—

E. B. Estes & Sons, 45-47 John St., N. Y.

Spoke Machinery—

National Machinery Co., Tiffin, O.

Spokes, Boat—

American Iron & Steel Mfg. Co., Leb-

anon, Pa.

M. Lanz & Sons, Pittsburgh, Pa.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Spikes, Dock, Wharf, &c.—

American Iron & Steel Mfg. Co., Leb-

anon, Pa.

Samuel Hall's Sons, 229-233 W. 10th St.,

New York.

Jones & Laughlin Steel Co., Pittsburgh,

M. Lanz & Sons, Pittsburgh, Pa.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Republic Iron & Steel Co., Chicago, Ill.

Spikes, Galvanized—

Cleveland Galvanizing Works, Cleveland, O.

United Galvanizing Co., Inc., 525-529 N.

Front St., Philadelphia, Pa.

Spikes, Marlin, Pickers, &c.—

W. & J. Tiebout, 118 Chambers St.,

N. Y.

Spikes, Railroad—

American Iron & Steel Mfg. Co., Leb-

anon, Pa.

Jones & Laughlin Steel Co., Pittsburgh,

W. K. Kenly Co., First National Bank

Bldg., Chicago, Ill.

Republic Iron & Steel Co., Chicago, Ill.

Spindles, Carriage and Fur-**niture—**

E. B. Estes & Sons, 45-47 John St., N. Y.

W. R. Hartigan, Collinsville, Ct.

Spindles, Cream Separator—

Standard Welding Co., Cleveland, O.

Spinning Chucks—

(See Chucks, Spinning.)

Spinning Machines, Rivet—

Grant Mfg. & Machine Co., Bridgeport.

Spinning, Metal—

Goodwin & Rintz Co., Winsted, Ct.

Naugatuck Mfg. Co., Naugatuck, Ct.

Turner Brass Works, Franklin & Michi-

gan Sts., Chicago, Ill.

Spiral Conveyors—

(See Conveyors, Steel Screw.)

Spittoons—

(See Cuspidors.)

Splicers, Wire—

Bridgeport Hardware Mfg. Co., Bridge-

port, Ct.

Otis A. Smith, Rockfall, Ct.

Smith & Hemenway Co., 106-110 Duane

St., New York.

See also Pliers, Knot Tying.

Splicing Clamps—

(See Clamps, Splicing.)

Splitting Machines, Belt**Knife—**

American Tool & Machine Co., Boston.

Spoke Header and Bender.**Bicycle—**

Garvin Machine Co., Spring and Varick

Sts., New York.

E. J. Manville Machine Co., Waterbury,

Ct.

Spoke Pointers, Shaves.**Trimmers—**

(See Pointers, Shaves, Trimmers.)

Spoke Tenon Machines—

Defiance Machine Works, Defiance, O.

Silver Mfg. Co., Salem, O.

Spoke Threaders, Bicycle—

(See Threaders, Bicycle Spoke.)

Spoke Wire, Bicycle—

(See Wire, Bicycle Spoke.)

Spokes, Automobile and**Bicycle—**

Excelsior Needle Co., Torrington, Ct.

Wire Goods Co., Worcester, Mass.

Spokes, Sulky—

Wire Goods Co., Worcester, Mass.

Sponge Baskets—

(See Baskets, Sponge.)

Spool Machinery, Wood—

Defiance Machine Works, Syracuse, N. Y.

Spooled Wire—

(See Wire, Spooled.)

Spooling Machines—

Hoefler Mfg. Co., Freeport, Ill.

Spoon Holders—

(See Holders, Spoon, Silver Plated.)

Spoon Trays—

(See Trays, Silver Plated.)

Spoons and Forks, Silver**and Silver Plated—**

International Silver Co., 9-13 Maiden

Lane, New York.

Landers, Frary & Clark, New Britain, Ct.

Oneida Community, Niagara Falls, N. Y.

Spoons and Forks, Solid**Metal—**

Acme Shear Co., Bridgeport, Ct.

Charles Parker Co., Meriden, Ct.

Spoons and Forks, Tinned—

Lalance & Grosjean Mfg. Co., 19 Cliff St.,

New York.

Charles Parker Co., Meriden, Ct.

Republic Metalware Co., Buffalo, N. Y.

Spoons, Kitchen—

Potter Mfg. Co., Geneva, O.

Spoons, Soda Water—

International Silver Co., 9-13 Maiden

Lane, New York.

Oneida Community, Niagara Falls, N. Y.

Spoons, Telegraph—

(See Shovels and Spoons, Telegraph Pole.)

Spoons, Wooden—

E. B. Estes & Sons, 45-47 John St., N. Y.

Sporting Goods, Jobbers—

(See Jobbers, Hardware, Cutlery, Tools, Sporting Goods, &c.)

Spouts, Grain—

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Charles Miller & Son Co., Utica, N. Y.

Sprayers, Crop, Horse—

Bateman Mfg. Co., Grenloch, N. J.

Spraying Pumps—

(See Pumps, Spraying.)

Spring Balances—

(See Balances.)

Spring Coiling Machines—

Blake & Johnson, Waterbury, Ct.
Garvin Machine Co., Spring and Varick Sts., New York.

Hoefler Mfg. Co., Freeport, Ill.

E. J. Manville Machine Co., Waterbury, Ct.

Springs, Agricultural Implement—

Bridgeport Chain Co., Bridgeport, Ct.
Cary Spring Works, 240-242 W. 29th St., New York.

Cleveland Wire Spring Co., Cleveland, O.
Wm. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Harrow Spring Co., Kalamazoo, Mich.
Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.
Sabin Machine Co., Montpelier, Vt.

Wire Goods Co., Worcester, Mass.

Springs, Air Brake—

Cary Spring Works, 240-242 W. 29th St., New York.

Cleveland Wire Spring Co., Cleveland, O.
W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Kilborn & Bishop Co., New Haven, Ct.
Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Automobile—
Wallace Barnes Co., Bristol, Ct.

Cary Spring Works, 240-242 W. 29th St., New York.

Cleveland Wire Spring Co., Cleveland, O.
W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Baby Jumper—
Miller & Van Winkle, Brooklyn, N. Y.

Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Bed—
Bridgeport Chain Co., Bridgeport, Ct.

Cleveland Wire Spring Co., Cleveland, O.
Clinton Wire Cloth Co., Clinton, Mass.

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway, New York.

Springs, Bicycle—

Wallace Barnes Co., Bristol, Ct.
Cleveland Wire Spring Co., Cleveland, O.

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.
Sabin Machine Co., Montpelier, Vt.

Tuck Mfg. Co., Brockton, Mass.

Springs, Bird Cage—

Bridgeport Chain Co., Bridgeport, Ct.
W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Andrew B. Hendryx Co., New Haven, Ct.
Morgan Spring Co., Worcester, Mass.

Parker Wire Goods Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.
Wire Goods Co., Worcester, Mass.

Springs, Bobbin Rings—

Wallace Barnes Co., Bristol, Ct.
W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.

Springs, Buggy Boot—

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Car—

American Steel Foundries, Fisher Bldg., Chicago, Ill.

Harrow Spring Co., Kalamazoo, Mich.
Railway Steel Spring Co., 71 Broadway, New York.

Springs, Carriage, Wagon, &c.—

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.

Springs, Chair—

(See Springs, Furniture and Upholstery.)

Springs, Check—

Wallace Barnes Co., Bristol, Ct.
Cleveland Wire Spring Co., Cleveland, O.

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.

W. R. Ostrander & Co., 22 Dey St., N. Y.
Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Upson Nut Co., Cleveland, O.

Springs, Clearer—

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Wm. H. Haskell Mfg. Co., Pawtucket, R.I.
Railway Steel Spring Co., 71 Broadway, New York.

Springs, Clock—

Wallace Barnes Co., Bristol, Ct.
Boston Gear Works, Boston, Mass.

Cary Spring Works, 240 W. 29th St., N.Y.
W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
Railway Steel Spring Co., 71 Broadway,
New York.

Springs, Compression—

Raymond Mfg. Co., Corry, Pa.

Springs, Curtain Rod—

Pullman Mfg. Co., Rochester, N. Y.

Springs, Cutter Bar—

W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.

Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Derrick—

Beecher Draught Spring Co., New Haven,
Ct.

Railway Steel Spring Co., 71 Broadway,
New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Door—

Arcade Mfg. Co., Freeport, Ill.

Wallace Barnes Co., Bristol, Ct.

Bridgeport Chain Co., Bridgeport, Ct.

Caldwell Mfg. Co., Rochester, N. Y.

John Chatillon & Sons, 85 Cliff St., N. Y.

Chicago Spring Butt Co., Chicago, Ill.

Cleveland Wire Spring Co., Cleveland, O.

Columbian Hardware Co., Cleveland, O.

W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.

Lawrence Bros., Sterling, Ill.

Middleton Mfg. Co., Middleton, O.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Parker Wire Goods Co., Worcester, Mass.

Pullman Mfg. Co., Rochester, N. Y.

Railway Steel Spring Co., 71 Broadway,
New York.

Raymond Mfg. Co., Corry, Pa.

Sabin Machine Co., Montpelier, Vt.

Union Mfg. Co., New Britain, Ct.

Wire Goods Co., Worcester, Mass.

Springs, Draught—

Beecher Draught Spring Co., New Haven,
Ct.

Railway Steel Spring Co., 71 Broadway,
New York.

Raymond Mfg. Co., Corry, Pa.

Smith & Hemenway Co., 108-110 Duane
St., New York.

Springs, Drill—

Wallace Barnes Co., Bristol, Ct.

W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Electrical Equip-

Wallace Barnes Co., Bristol, Ct.

Bridgeport Chain Co., Bridgeport, Ct.

Cary Spring Works, 240-242 W. 29th St.,
New York.

Cleveland Wire Spring Co., Cleveland, O.

W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.

Kilborn & Bishop Co., New Haven, Ct.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Elliptic—

American Steel Foundries, Fisher Bldg.,
Chicago, Ill.

Springs, Exerciser—

W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.

Railway Steel Spring Co., 71 Broadway,
New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Extension—

Raymond Mfg. Co., Corry, Pa.

Springs, Fender, Car—

W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.

Harrow Spring Co., Kalamazoo, Mich.

Miller & Van Winkle, Brooklyn, N. Y.

Railway Steel Spring Co., 71 Broadway,
New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Friction Washer—

Wallace Barnes Co., Bristol, Ct.

W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
New York.

Springs, Furniture and Up-

holstery—
Bridgeport Chain Co., Bridgeport, Ct.

Cleveland Wire Spring Co., Cleveland, O.

W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
New York.

Raymond Mfg. Co., Corry, Pa.

Wire Goods Co., Worcester, Mass.

Springs, Gas Engine—

Raymond Mfg. Co., Corry, Pa.

Springs, Gate—

Pullman Mfg. Co., Rochester, N. Y.

Springs, Go-Cart—

Miller & Van Winkle, Brooklyn, N. Y.

Railway Steel Spring Co., 71 Broadway,
New York.

Springs, Governor—

Wallace Barnes Co., Bristol, Ct.

Bridgeport Chain Co., Bridgeport, Ct.

Cary Spring Works, 240-242 W. 29th St.,
New York.

Cleveland Wire Spring Co., Cleveland, O.

W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
New York.

Raymond Mfg. Co., Corry, Pa.

Sabin Machine Co., Montpelier, Vt.

Springs, Grease Cup—

Wallace Barnes Co., Bristol, Ct.

Miller & Van Winkle, Brooklyn, N. Y.

Railway Steel Spring Co., 71 Broadway,
New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Gun—

Wallace Barnes Co., Bristol, Ct.

W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
New York.

Raymond Mfg. Co., Corry, Pa.

Harrow Spring Co., Kalamazoo, Mich.
 Miller & Van Winkle, Brooklyn, N. Y.
 Morgan Spring Co., Worcester, Mass.
 Railway Steel Spring Co., 71 Broadway,
 New York.

Springs, Sheaf Carrier—

W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.
 Morgan Spring Co., Worcester, Mass.
 Railway Steel Spring Co., 71 Broadway,
 New York.

Springs, Shuttle—

American Tube & Stamping Co., Bridge-
 port, Ct.

W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
 Morgan Spring Co., Worcester, Mass.

New England Specialty Co., North
 Easton, Mass.

Railway Steel Spring Co., 71 Broadway,
 New York.

Springs, Squaring Shear—

W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
 Railway Steel Spring Co., 71 Broadway,
 New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Steel—

Wallace Barnes Co., Bristol, Ct.
 Cary Spring Works, 240-242 W. 29th St.,
 New York.

John Chatillon & Sons, 85 Cliff St., N. Y.
 Cleveland Wire Spring Co., Cleveland, O.

Dumbar Bros., Bristol, Ct.
 W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Geo. Q. Hill Co., Boston, Mass.

R. C. Jenkinson & Co., Newark, N. J.
 Kilborn & Bishop Co., New Haven, Ct.

Miller & Van Winkle, Brooklyn, N. Y.
 Morgan Spring Co., Worcester, Mass.

New England Specialty Co., North
 Easton, Mass.

Parker Wire Goods Co., Worcester, Mass.
 Railway Steel Spring Co., 71 Broadway,
 New York.

Raymond Mfg. Co., Corry, Pa.

Sabin Machine Co., Montpelier, Vt.

Tuck Mfg. Co., Brockton, Mass.

S. & C. Vardlow, 95 John St., N. Y.
 Wire Goods Co., Worcester, Mass.

Springs, Tedder Fork—

W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
 Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
 New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Trace—

Raymond Mfg. Co., Corry, Pa.

Springs, Trille—

Bridgeport Chain Co., Bridgeport, Ct.
 Cary Spring Works, 240-242 W. 29th St.,
 New York.

Cleveland Wire Spring Co., Cleveland, O.
 W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
 Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
 New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Typewriter—

Wallace Barnes Co., Bristol, Ct.

Cary Spring Works, 240-242 W. 29th St.,
 New York.

Cleveland Wire Spring Co., Cleveland, O.
 W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
 Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
 New York.

Raymond Mfg. Co., Corry, Pa.

Tuck Mfg. Co., Brockton, Mass.

Springs, Valve—
 Ashton Valve Co., Boston, Mass.

Wallace Barnes Co., Bristol, Ct.
 Cary Spring Works, 240-242 W. 29th St.,
 New York.

Cleveland Wire Spring Co., Cleveland, O.
 W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
 Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
 New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Wagon Brake—
 W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Railway Steel Spring Co., 71 Broadway,
 New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Wagon Pole—
 Beecher Draught Spring Co., New Haven,
 Ct.

Bridgeport Chain Co., Bridgeport, Ct.
 Cary Spring Works, 240-242 W. 29th St.,
 New York.

Cleveland Wire Spring Co., Cleveland, O.
 W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
 Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
 New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Washing Machine—
 Miller & Van Winkle, Brooklyn, N. Y.

Railway Steel Spring Co., 71 Broadway,
 New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Watch—
 Cary Spring Works, 240-242 W. 29th St.,
 New York.

Railway Steel Spring Co., 71 Broadway,
 New York.

Springs, Wind Mill—
 Cleveland Wire Spring Co., Cleveland, O.

W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
 Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
 New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Window—
 Cary Spring Works, 240-242 W. 29th St.,
 New York.

W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
 Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
 New York.

Reading Hardware Co., Reading, Pa.

Stanley Works, New Britain, Ct.

Springs, Window Screen—
 Wallace Barnes Co., Bristol, Ct.

Caldwell Mfg. Co., Rochester, N. Y.

Miller & Van Winkle, Brooklyn, N. Y.
Pullman Mfg. Co., Rochester, N. Y.
Railway Steel Spring Co., 71 Broadway,
New York.

Spring Wire—

Wallace Barnes Co., Bristol, Ct.
Bridgeport Chain Co., Bridgeport, Ct.
Cary Spring Works, 240-242 W. 29th St.,
New York.

John Chatillon & Sons, 85 Cliff St., N. Y.
Cleveland Wire Spring Co., Cleveland, O.
Dunbar Bros., Bristol, Ct.
W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.

R. C. Jenkinson & Co., Newark, N. J.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Parker Wire Goods Co., Worcester, Mass.
Pullman Mfg. Co., Rochester, N. Y.
Railway Steel Spring Co., 71 Broadway,
New York.

Raymond Mfg. Co., Corry, Pa.
Sabin Machine Co., Montpelier, Vt.
Tuck Mfg. Co., Brockton, Mass.
Wire Goods Co., Worcester, Mass.

Spring, Wire—

Bridgeport Chain Co., Bridgeport, Ct.
Cleveland Wire Spring Co., Cleveland, O.
W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Parker Wire Goods Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway,
New York.

Raymond Mfg. Co., Corry, Pa.
Wire Goods Co., Worcester, Mass.

Spring, Lawn—

Blair Mfg. Co., Springfield, Mass.
Cleveland Lock Co., Cleveland, O.
Deming Co., Salem, O.
Enterprise Mfg. Co., Philadelphia, Pa.
Humphreys Mfg. Co., Manassas, O.
F. E. Kohler & Co., Canton, O.
John C. Kupferle, St. Louis, Mo.
Landers, Frary & Clark, New Britain, Ct.
John H. McGowan Co., Cincinnati, O.
McNab & Harlin Mfg. Co., 56 John St.,
New York.

Philadelphia Lawn Mower Co., 3100-3109
Chestnut St., Philadelphia, Pa.
Pleuger & Henger Mfg. Co., St. Louis.
Pullman Mfg. Co., Rochester, N. Y.

Sprocket Wheel Cutters—

(See Cutters, Sprocket Wheel.)

Sprocket Wheels—

(See Wheels, Sprocket.)

Spuds, Tobacco and Dandelion—

American Fork & Hoe Co., Cleveland, O.
Geo. H. Bishop & Co., Cincinnati, O.

Square and Gauge Combined—

(See Gauge and Square, Combined.)

Square Attachments—

Tower & Lyon Co., 95 Chambers St., N. Y.

Square Levels—

(See Levels, Bit and Square.)

Squares, Bevel, Try—

Duby & Shinn Mfg. Co., 34 E. 29th St.,
New York.

Nicholls Mfg. Co., Ottumwa, Ia.

Squares, Caliper—

Brown & Sharpe Mfg. Co., Providence,
R. I.
L. S. Starrett Co., Athol, Mass.

Squares, Center—

Athol Machine Co., Athol, Mass.
L. S. Starrett Co., Athol, Mass.

Squares, Combination—

Athol Machine Co., Athol, Mass.
Brown & Sharpe Mfg. Co., Providence,
R. I.
Duby & Shinn Mfg. Co., 34 E. 29th St.,
New York.

Goodell-Pratt Co., Greenfield, Mass.

L. S. Starrett Co., Athol, Mass.

Squares, Double—

L. S. Starrett Co., Athol, Mass.

Squares, Iron and Steel—

Athol Machine Co., Athol, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Henry Disston & Sons, Philadelphia, Pa.
Nicholls Mfg. Co., Ottumwa, Ia.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Russell & Erwin Mfg. Co., 43-47 Cham-
bers St., New York.

L. S. Starrett Co., Athol, Mass.

Squares, Machinists—

Athol Machine Co., Athol, Mass.
Brown & Sharpe Mfg. Co., Providence,
R. I.

Henry Disston & Sons, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Massachusetts Tool Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

L. S. Starrett Co., Athol, Mass.

Squares, Pocket—

Bemis & Call Hardware & Tool Co.,
Springfield, Mass.

Squares, T—

Henry Disston & Sons, Philadelphia, Pa.
Keuffel & Esser Co., 127 Fulton St., N. Y.
L. S. Starrett Co., Athol, Mass.

Squares, Try and Miter—

Athol Machine Co., Athol, Mass.
E. C. Atkins & Co., Indianapolis, Ind.
Duby & Shinn Mfg. Co., 34 E. 29th St.,
New York.

Goodell-Pratt Co., Greenfield, Mass.
Henry Disston & Sons, Philadelphia, Pa.
Keuffel & Esser Co., 127 Fulton St., N. Y.
Massachusetts Tool Co., Greenfield, Mass.
P. L. Fox, Bridgeport, Ct.
Stanley Rule & Level Co., New Britain, Ct.
L. S. Starrett Co., Athol, Mass.

Squaring Instruments—

(See Instruments, Leveling and Squar-
ing.)

Squeegees, Floor—

Handy Things Co., Ludington, Mich.

Squeezers, Lemon—

Arcade Mfg. Co., Frenport, Ill.
Erie Specialty Co., Erie, Pa.
E. B. Estes & Sons, 45-47 John St., N. Y.
Landers, Frary & Clark, New Britain, Ct.
Charles Parker Co., Meriden, Ct.
Pleuger & Henger Mfg. Co., St. Louis.
Republic Metalware Co., Buffalo, N. Y.
Rock River Mfg. Co., Dixon, Ill.
John Sommer's Son, Newark, N. J.
A. C. Williams, Ravenna, O.

Squeezers, Lime—

Erie Specialty Co., Erie, Pa.

Squeezers, Puddle Ball—

George A. Hogg Iron & Steel Foundry
Co., Pittsburgh, Pa.
Mesta Machine Co., Pittsburgh, Pa.
Philadelphia Roll & Machine Co., 23d St.
& Washington Ave., Philadelphia.

Squeezing Machines, Can-

E. W. Bliss Co., Brooklyn, N. Y.
Chas. Leffler & Co., Brooklyn, N. Y.
Niagara Machine & Tool Works, Buffalo.

Stable Fixtures-

Adam's Steel & Wire Works, Joliet, Ill.
Bethlehem Foundry & Machine Co.,
South Bethlehem, Pa.

A. Buch's Sons Co., Elizabethtown, Pa.
Buffalo Wire Works Co., Buffalo, N. Y.
Edward Darby & Sons, 233-235 Arch St.,
Philadelphia, Pa.

Enterprise Foundry & Fence Co., Indianapolis, Ind.

Estey Wire Works, 59 Fulton St., N. Y.
Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Glen Mfg. Co., Ellwood City, Pa.

Howard & Morse, 45 Fulton St., N. Y.

Kramer Bros. Foundry Co., Dayton, O.

W. N. Kratzer & Co., Pittsburgh, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

National Iron & Wire Co., Cleveland, O.

Ohio Structural Iron Co., Sandusky, O.

Stewart Iron Works Co., Cincinnati, O.

W. S. Tyler Co., Cleveland, O.

Van Dorn Iron Works Co., Cleveland, O.

Warsaw Elevator Co., Warsaw, N. Y.

West Side Foundry Co., Troy, N. Y.

Stacks for Lumber-

Soule Steam Feed Works, Meridian, Miss.

Stacks, Steel-

(See Chimneys, Steel.)

Stains, Shingle, Wood, &c.-

Samuel Cabot, Boston, Mass.

Stair Treads, Brass-

(See Plates, Brass Step.)

Stairs, Iron and Steel-

Bethlehem Foundry & Machine Co.,
South Bethlehem, Pa.

Chesapeake Iron Works, Baltimore, Md.

Forest City Steel & Iron Co., Cleveland.

Glen Mfg. Co., Ellwood City, Pa.

W. N. Kratzer & Co., Pittsburgh, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Ohio Structural Iron Co., Sandusky, O.

Stewart Iron Works Co., Cincinnati, O.

Van Dorn Iron Works Co., Cleveland, O.

Stake Chains-

(See Chains, Wagon and Fancy.)

Stake Holders, Wagon-

(See Holders, Stake Wagon.)

Stakes and Sticks, Plant-

E. H. Estes & Sons, 45-47 John St., N. Y.

Stakes, Cornice Makers-

Niagara Machine & Tool Works, Buffalo,
N. Y.

Stakes, Tinners'-

Niagara Machine & Tool Works, Buffalo.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Staking Out Chains-

(See Chains, Pickets, &c.)

Stall Hitchers-

(See Posts, Hitching.)

Stamp Mill Wearing Parts-

Chrome Steel Works, Chrome, N. J.

Stamped Metal Work to

Order-

(See Metal Work, Milled, Turned or
Stamped to Order, Also Sheet
Metal Work.)

Stamping, Sheet Metal-

Adriance Machine Works, Brooklyn, N. Y.

Advance Mfg. Co., Racine Junction, Wis.

American Sheet & Tin Plate Co., Pitts-
burgh, Pa.

American Tube & Stamping Co., Bridge-
port, Ct.

Avery Stamping Co., Cleveland, O.

A. N. Clark & Son, Plainville, Ct.

W. J. Clark Co., Salem, O.

Cleveland Stamping & Tool Co., Cleve-
land, O.

Crosby Co., Buffalo, N. Y.

Edwards Mfg. Co., Cincinnati, O.

Erle Stamping & Mfg. Co., Erie, Pa.

Gem Mfg. Co., Pittsburgh, Pa.

Glen Rock Stamping Co., Glen Rock, Pa.

Goodwin & Kintz Co., Winsted, Ct.

R. C. Jenkinson & Co., Newark, N. J.

John R. Keim Mills, Buffalo, N. Y.

E. Konigslow Stamping & Tool Works,
Cleveland, O.

Chas. Leffler & Co., Brooklyn, N. Y.

H. A. Matthews Mfg. Co., Seymour, Ct.

Frank Mossberg Co., Attleboro, Mass.

Mossberg Wrench Co., Central Falls, R. I.

Parker Wire Goods Co., Worcester, Mass.

Arthur T. Rutter & Co., 256 Broadway,
New York.

Wm. B. Scaife & Sons Co., Pittsburgh.

Schatz Hardware Mfg. Co., Chappaqua,
N. Y.

Ira B. Smith, Bristol, Ct.

Standard Pressed Steel Co., 20th and
Clearfield Sts., Philadelphia, Pa.

Turner Brass Works, Franklin & Michi-
gan Sts., Chicago, Ill.

W. & S. Mfg. Co., Worcester, Mass.

Waterbury Brass Co., Waterbury, Ct.

Wrought Washer Mfg. Co., Milwaukee.

Stampings, Bicycle-

(See Bicycle Parts.)

Stamps and Dies, Steel-

Adriance Machine Works, Brooklyn, N. Y.

Blake & Johnson, Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Consolidated Press & Tool Co., 96-100 N.
Clinton St., Chicago, Ill.

Glen Rock Stamping Co., Glen Rock, Pa.

Hilles & Jones Co., Wilmington, Del.

Howard Iron Works, Buffalo, N. Y.

E. Konigslow Stamping & Tool Works,
Cleveland, O.

Chas. Leffler & Co., Brooklyn, N. Y.

John Loyd Co., 558 Water St., New York.

Geo. M. Ness, Jr., 61 Fulton St., N. Y.

Niagara Machine & Tool Works, Buffalo,
N. Y.

Richard Mfg. Co., Bloomsburg, Pa.

Schatz Hardware Mfg. Co., Chappaqua,
N. Y.

Schwerdtle Stamp Co., Bridgeport, Ct.

Ira B. Smith, Bristol, Ct.

V. & O. Press Co., Brooklyn, N. Y.

W. & S. Mfg. Co., Worcester, Mass.

J. H. Williams & Co., Brooklyn, N. Y.

(See also Dies.)

Stamps, Brass-

Geo. M. Ness, Jr., 61 Fulton St., N. Y.

Schwerdtle Stamp Co., Bridgeport, Ct.

Stamps, Dating-

American Railway Supply Co., 24 Park
Place, New York.

H. H. Franklin Mfg. Co., Syracuse, N. Y.

Geo. M. Ness, Jr., 61 Fulton St., N. Y.

Schwerdtle Stamp Co., Bridgeport, Ct.

R. Woodman Mfg. & Supply Co., Boston.

Stamps, Rubber-

Geo. M. Ness, Jr., 61 Fulton St., N. Y.

New York Stencil Works, 100 Nassau St.,
New York.

Schwerdtle Stamp Co., Bridgeport, Ct.

Stamps, Self Inking—

Geo. M. Ness, Jr., 61 Fulton St., N. Y.
Schwerdtle Stamp Co., Bridgeport, Ct.

Stamps, Steel—

New York Stencil Works, 100 Nassau St., New York.

Stamps, Steel Name—

A. G. Butler, 234-236 Pearl St., N. Y.
E. Konigsfrow Stamping & Tool Works, Cleveland, O.

Geo. M. Ness, Jr., 61 Fulton St., N. Y.
Schwerdtle Stamp Co., Bridgeport, Ct.

Stamps, Time—

C. Nanz & Co., 127 Duane St., New York.
Riggs & Bro., 310 Market St., Philadelphia, Pa.

Schwerdtle Stamp Co., Bridgeport, Ct.

Stanchions, Cattle—

Warsaw Elevator Co., Warsaw, N. Y.

Stanchions, Hand Rope—

W. & J. Tiebout, 118 Chambers St., N. Y.

Standards and Sockets, Can-

opy Top—

E. D. Clapp Mfg. Co., Auburn, N. Y.

Standpipes—

American Valve & Meter Co., Cincinnati, O.

East Jersey Pipe Co., Paterson, N. J.

S. Freeman & Sons Mfg. Co., Racine, Wis.

E. Keeler Co., Williamsport, Pa.

Mechan Boiler & Construction Co., Lowellville, O.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh.

Sheffield Car Co., Three Rivers, Mich.

Struthers, Wells & Co., Warren, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

Wickes Bros., Saginaw, Mich.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Stands and Holders, Bi-

cycle—

City Forge & Iron Works, Dayton, O.

F. E. Myers & Bro., Ashland, O.

Ohio Structural Iron Co., Sandusky, O.

Wire Goods Co., Worcester, Mass.

Stands and Lasts—

(See Lasts and Stands, Shoe.)

Stands and Racks, Ginger

Ale—

New York Stamping Co., Brooklyn, N. Y.

Stands, Axe and Scythe—

J. D. Warren Mfg. Co., Chicago, Ill.

Stands, Blower—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Stands, Calendar—

Wrightsville Hardware Co., Wrightsville, Pa.

Stands, Coffee Pot—

Columbia Grey Iron Co., Columbia, Pa.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Wrightsville Hardware Co., Wrightsville, Pa.

Stands, Coffee Pot, Wire—

(See Household Articles, Wire.)

Stands, Emery Wheel and

Polishing—

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Roversford Foundry & Machine Co., Roversford, Pa.

Stands, Floor—

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Falls Rivet & Machine Co., Cuyahoga Falls, O.

Jones & Laughlin Steel Co., Pittsburgh.

Lunkenheimer Co., Cincinnati, O.

Stands, Flower Pot—

Buffalo Wire Works Co., Buffalo, N. Y.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Estey Wire Works Co., 65 Fulton St., N. Y.

Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Howard & Morse, 45 Fulton St., N. Y.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Maine Mfg. Co., Nashua, N. H.

Wright Wire Co., Worcester, Mass.

Stands, Ironing—

Udell Works, Indianapolis, Ind.

Stands, Mule Pulley—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Falls Rivet & Machine Co., Cuyahoga Falls, O.

Jones & Laughlin Steel Co., Pittsburgh.

Poole Engineering & Machine Co., Baltimore, Md.

Stands, Music—

Streator Metal Stamping Co., Streator, Ill.

Stands, Sad Iron—

Columbia Grey Iron Co., Columbia, Pa.

Fanner Mfg. Co., Cleveland, O.

Gray Iron Foundry Co., Reading, Pa.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis.

Schreiber & Conchar Mfg. Co., Dubuque, Ia.

Wrightsville Hardware Co., Wrightsville, Pa.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

Stands, Shoe Polish—

Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.

Stands, Tool, Portable—

Western Tool & Mfg. Co., Springfield, O.

Stands, Umbrella—

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Buffalo Wire Works Co., Buffalo, N. Y.

W. J. Clark Co., Salem, O.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Estey Wire Works Co., 65 Fulton St., N. Y.

Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Goodwin & Kintz Co., Winsted, Ct.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

John P. Smith & Co., New Haven, Ct.

Stands, Vice, Portable—

Western Tool & Mfg. Co., Springfield, O.

Stands, Wash Tub—

(See Benches, Tub and Wringer.)

Staple Drivers—

(See Drivers, Staple.)

Staple Machinery—

Baird Machinery Co., Oakville, Ct.
 Blake & Johnson, Waterbury, Ct.
 E. J. Manville Machine Co., Waterbury, Ct.

F. B. Shuster Co., New Haven, Ct.
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Staple Pullers—

(See Pullers, Staple.)

Staples—

(See Wrought Iron Goods.)

Staples and Loops, Furniture—

Grand Crossing Tack Co., Grand Crossing, Ill.

Staples, Bar—

Vaughan & Bushnell Mfg. Co., Chicago.

Staples, Nutted—

Upton Nut Co., Cleveland, O.

Staples, Wagon Bow—

St. Louis Hardware Mfg. Co., St. Louis.

Staples, Wire—

Clinton Wire Cloth Co., Clinton, Mass.
 Cobb & Drew, Plymouth, Mass.
 Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Dillon-Griswold Wire Co., Sterling, Ill.

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.

Parker Wire Goods Co., Worcester, Mass.

Pittsburgh Steel Co., Pittsburgh, Pa.

Spencer Wire Co., Worcester, Mass.

E. H. Titchener & Co., Binghamton, N.Y.

Wickwire Bros., Cortland, N. Y.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Starters, Bung—

Boston and Lockport Block Co., Boston.

Sandusky Tool Co., Sandusky, O.

Union Hardware Co., Torrington, Ct.

Station House Cages—

(See Jails, Jail Cells, &c.)

Stationers' Hardware (Ink-

stands, Clips, Pin Cushions,

Pen Racks and Trays,

&c.)—

Blake & Johnson, Waterbury, Ct.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Goodwin & Kintz Co., Winsted, Ct.

Geo. S. Knapp, Bridgeport, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Susquehanna Casting Co., Wrightsville, Pa.

United States Clothes Pin Co., Montpelier, Vt.

Stationers' Wire Goods,

Desk Baskets, &c.—

Kilbourne Mfg. Co., Troy, N. Y.

Parker Wire Goods Co., Worcester, Mass.

Statuary, Sheet Metal—

Edwards Mfg. Co., Cincinnati, O.

Stave Knives—

(See Knives, Machine.)

Stave Sawing and Finishing Machinery—

Peter Gerlach Co., Cleveland, O.

Stay Bolt Cutters, Rollers—

(See Cutters, Stay Bolt Rollers.)

Stay Bolt Iron—

(See Iron, Rivet and Stay Bolt.)

Stay Bolts, Rollers—

(See Bolts, Roller Stay.)

Stay Bolts, Rollers—

(See Bolts, Rollers.)

Stay Rollers—

(See Rollers, Stay.)

Stays, Bicycle—

(See Bicycle Parts.)

Stays, Transom—

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Stays, Trunk Lid—

R. C. Jenkinson & Co., Newark, N. J.

J. H. Sessional & Son, Bristol, Ct.

Stays, Wire Fencing—

Racine Tank Ldg Co., Racine, Wis.

Steak Pounders—

(See Pounders, Steak.)

Steam Fitters' Supplies—

American Valve & Meter Co., Cincinnati, O.

Bridgman Bros. Co., 1422-28 Washington Ave., Philadelphia, Pa.

Humphreys Mfg. Co., Mansfield, O.

Lunkenheimer Co., Cincinnati, O.

Chas. Millar & Son Co., Utica, N. Y.

H. Mueller Mfg. Co., Decatur, Ill.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

D. T. Williams Valve Co., Cincinnati, O.

Steamers, Thawing—

Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.

MERCHANTS,

Thornton Machinery Co., Providence, R. I.

Steel, Agricultural—

Inland Steel Co., First National Bank Bldg., Chicago, Ill.

Sweet's Steel Co., Williamsport, Pa.

Steel, Automobile Frame—

Columbia Steel Co., Elyria, O.

Steel, Axe—

Colonial Steel Co., Pittsburgh, Pa.

Sweet's Steel Co., Williamsport, Pa.

Steel Balls, Bars, &c.—

(See Balls, Bars, &c.)

Steel, Band Saw—

Colonial Steel Co., Pittsburgh, Pa.

Henry Diston & Sons, Philadelphia, Pa.

Steel, Basic—

La Belle Iron Works, Steubenville, O.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Steel Brokers and Merchants—

(See Iron and Steel Brokers and Merchants.)

Steel, Chrome—

Chrome Steel Works, Chrome, N. J.

Steel, Chrome, Nickel—

Baldwin Steel Co., 133 Reade St., N. Y.

Schuchardt & Schutte, 136 Liberty St., New York.

Steel, Clock Spring—

Braeburn Steel Co., Braeburn, Pa.

Cary Spring Works, 240-242 W. 29th St., N. Y.

S. & C. Wardlow, 95 John St., N. Y.

Steel, Cold Drawn Shapes—

Henry Diston & Sons, Philadelphia, Pa.

Finished Steel Co., Youngstown, O.

C. Pardee Works, Perth Amboy, N. J.

MERCHANTS,

Arthur C. Harvey, Boston, Mass.

Geo. Nash & Co., 24 S. Clinton St., Chicago, Ill.

Edgar T. Ward & Sons, Boston, Mass.
Steel, Cold Rolled—
American Tube & Stamping Co., Bridge-
port, Ct.

Cary Spring Works, 240-242 W. 29th St.,
New York.

Columbia Bridge Co., Pittsburgh, Pa.
Henry Diston & Sons, Philadelphia, Pa.
Goff, Horner & Co., Ltd., Pittsburgh, Pa.
Wm. Jessop & Sons, Ltd., 91 John St.,
New York.

Jones & Laughlin Steel Co., Pittsburgh.
Morris & Bailey Steel Co., Pittsburgh, Pa.
Republic Iron & Steel Co., Chicago, Ill.
S. & C. Wardlow, 95 John St., N. Y.
Washburn Wire Co., Phillipsdale, R. I.
West Leechburg Steel Co., Pittsburgh, Pa.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
Denman & Davis, 85-87 John St., N. Y.
Dilworth, Gilbert & Towne, Inc., 35-37
Wooster St., New York.

Arthur C. Harvey Co., Boston, Mass.
McClerman & Orr, Monadnock Block, Chi-
cago, Ill.
Geo. Nash & Co., 24 S. Clinton St., Chi-
cago, Ill.

Patriarche & Bell, 215 Pearl St., N. Y.
Patterson, Gottfried & Hunter, Ltd., 146-
150 Centre St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee
Ave., Chicago, Ill.

G. H. Schrock, 291 Pearl St., N. Y.
Scully Steel & Iron Co., 69 N. Halsted
St., Chicago, Ill.

Edgar T. Ward & Sons, Boston, Mass.
Wheelock, Lovejoy & Co., 23 Cliff St.,
New York.

**Steel, Cold Rolled, Deep
Drawing—**
American Tube & Stamping Co., Bridge-
port, Ct.

Columbia Steel Co., Elyria, O.
Morris & Bailey Steel Co., Pittsburgh, Pa.

Steel, Cold Rolled Sheet—
Hot Rolled Sheet—
(See Sheet Steel.)

Steel, Cold Rolled Spring—
Morris & Bailey Steel Co., Pittsburgh, Pa.

Steel, Cold Rolled Strip—
American Tube & Stamping Co., Bridge-
port, Ct.

Columbia Steel Co., Elyria, O.
Henry Diston & Sons, Philadelphia, Pa.
Griffin Mfg. Co., Erie, Pa.

Miller & Van Winkle, Brooklyn, N. Y.
Morris & Bailey Steel Co., Pittsburgh, Pa.
Stanley Works, New Britain, Ct.

S. & C. Wardlow, 95 John St., N. Y.
West Leechburg Steel Co., Pittsburgh, Pa.

MERCHANTS.

Hermann Boker & Co., 101-103 Duane St.,
New York.

Bourne-Fuller Co., Cleveland, O.
Denman & Davis, 85-87 John St., N. Y.
Dilworth, Gilbert & Towne, Inc., 35-37
Wooster St., New York.

Arthur C. Harvey Co., Boston, Mass.
Harold McCalla, 619 N. Front St., Phila-
delphia, Pa.

McClerman & Orr, Monadnock Block, Chi-
cago, Ill.
George Nash & Co., 24 So. Clinton St.,
Chicago, Ill.

G. H. Schrock, 291 Pearl St., New York.
Scully Steel & Iron Co., 69 N. Halsted
St., Chicago, Ill.

Charles G. Stevens Co., 58-60 S. Canal
St., Chicago, Ill.

Edgar T. Ward & Sons, Boston, Mass.
Wheelock, Lovejoy & Co., 23 Cliff St.,
New York.

Steel, Corset—
American Tube & Stamping Co., Bridge-
port, Ct.

Cary Spring Works, 240-242 W. 29th St.,
New York.

Steel, Crucible Cast—
Baldwin Steel Co., 133 Reade St., N. Y.
Braeburn Steel Co., Braeburn, Pa.

Chrome Steel Works, Chrome, N. J.
Colonial Steel Co., Pittsburgh, Pa.
Henry Diston & Sons, Philadelphia, Pa.

Hobson, Houghton & Co., Ltd., 93 John
St., New York.

John Illingworth Steel Co., Frankford,
Philadelphia, Pa.

Wm. Jessop & Sons, Ltd., 91 John St.,
New York.

Kidd Bros. & Burgher Steel Wire Co.,
McKee's Rocks, Pa.

Lough-Scott Co., 25 Cortlandt St., N. Y.
Samuel Osborn & Co., Boston, Mass.

S. & C. Wardlow, 95 John St., N. Y.
Worcester Steel Foundry Co., Worcester,
Mass.

MERCHANTS.

Hermann Boker & Co., 101-103 Duane St.,
New York.

Bourne-Fuller Co., Cleveland, O.
Denman & Davis, 87 John St., N. Y.
Dilworth, Gilbert & Towne, Inc., 35-37
Wooster St., New York.

Arthur C. Harvey Co., Boston, Mass.
Hawkrige Bros., Boston, Mass.
Geo. Nash & Co., 24 S. Clinton St., Chi-
cago, Ill.

G. H. Schrock, 291 Pearl St., New York.
Patriarche & Bell, 215 Pearl St., N. Y.
Charles G. Stevens Co., 58-60 S. Canal St.,
Chicago, Ill.

Wheelock, Lovejoy & Co., 23 Cliff St.,
New York.

Steel, Cutlery—
Henry Diston & Sons, Philadelphia, Pa.
S. & C. Wardlow, 95 John St., New York.

Steel, Die—
Baldwin Steel Co., 133 Reade St., N. Y.
Colonial Steel Co., Pittsburgh, Pa.

Henry Diston & Sons, Philadelphia, Pa.
Wm. Jessop & Sons, Ltd., 91 John St.,
New York.

Kidd Bros. & Burgher Steel Wire Co.,
McKee's Rocks, Pa.

S. & C. Wardlow, 95 John St., New York.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
Denman & Davis, 85-87 John St., N. Y.
Arthur C. Harvey Co., Boston, Mass.

Geo. Nash & Co., 24 S. Clinton St., Chicago.
Patriarche & Bell, 215 Pearl St., N. Y.
Joseph T. Ryerson & Son, 18-22 Milwaukee
Ave., Chicago, Ill.

G. H. Schrock, 291 Pearl St., New York.
Scully Steel & Iron Co., 69 N. Halsted
St., Chicago, Ill.

Charles G. Stevens Co., 58-60 S. Canal
St., Chicago, Ill.

Steel, Double Shear—
Colonial Steel Co., Pittsburgh, Pa.
Wm. Jessop & Sons, Ltd., 91 John St.,
New York.

S. & C. Wardlow, 95 John St., N. Y.

Steel, File—

Sweet's Steel Co., Williamsport, Pa.
S. & C. Wardlow, 95 John St., N. Y.

Steel File Cases—

(See Cases, Document and File.)

Steel Goods Brackets—

(See Brackets, Shovel, Hoe, Rake, Fork, &c.)

Steel Goods Racks—

(See Racks, Steel Goods.)

Steel, Hammer—

Braeburn Steel Co., Braeburn, Pa.
Colonial Steel Co., Pittsburgh, Pa.

Steel, High Speed—

Baldwin Steel Co., 133 Reade St., N. Y.
Wm. Jessop & Sons, 91 John St., N. Y.
Samuel Osborn & Co., Boston, Mass.
Schuchardt & Schutte, 136 Liberty St., New York.

A. P. Wittman & Co., 223-237 Cherry St., Philadelphia, Pa.

MERCHANTS.

Geo. Nash & Co., 24 S. Clinton St., Chicago, Ill.

Wheelock, Lovejoy & Co., 23 Cliff St., New York.

Steel, Hot Rolled Strip—

American Tube & Stamping Co., Bridgeport, Ct.

West Leechburg Steel Co., Pittsburgh, Pa.
Wheelock, Lovejoy & Co., 23 Cliff St., New York.

Steel, Key—

Columbia Bridge Co., Pittsburgh, Pa.

Steel, Machine Knife—

Colonial Steel Co., Pittsburgh, Pa.
S. & C. Wardlow, 95 John St., New York.

Steel, Machinery—

Braeburn Steel Co., Braeburn, Pa.
Colonial Steel Co., Pittsburgh, Pa.
Henry Disston & Sons, Philadelphia, Pa.
Morgan Construction Co., Worcester, Mass.
Wellman-Seaver-Morgan Co., Cleveland, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.

Denham & Davis, 85-87 John St., N. Y.

Arthur C. Harvey Co., Boston, Mass.

Hawkrige Bros., Boston, Mass.

Geo. Nash & Co., 24 S. Clinton St., Chicago, Ill.

Ogden & Wallace, 577 Greenwich St., N. Y.

Patriarche & Bell, 215 Pearl St., N. Y.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

G. H. Schrock, 291 Pearl St., New York.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Charles G. Stevens Co., 60 S. Canal St., Chicago, Ill.

Steel, Magnet—

Sweet's Steel Co., Williamsport, Pa.

Steel, Manganese—

Taylor Iron & Steel Co., High Bridge, N. J.

Steel, Merchant—

Interstae Iron & Steel Co., First National Bank Bldg., Chicago, Ill.

La Belle Iron Works, Steubenville, O.

C. Pardee Works, Perth Amboy, N. J.

Steel, Mushet's Special—

Samuel Osborn & Co., Boston, Mass.

Steel, Nickel—

Baldwin Steel Co., 133 Reade St., N. Y.

Steel, Pen—

Geo. Nash & Co., 24 S. Clinton St., Chicago, Ill.

S. & C. Wardlow, 95 John St., New York.

Steel Plants, Open Hearth—

Morgan Construction Co., Worcester, Mass.

Wellman-Seaver-Morgan Co., Cleveland, O.

Steel, Plow—

Colonial Steel Co., Pittsburgh, Pa.

Steel Plow, Soft Center—

Bourne-Fuller Co., Cleveland, O.
Colonial Steel Co., Pittsburgh, Pa.

Hermann Boker & Co., 101-103 Duane St., New York.

Steel, Polished Hack Saw

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Steel, Reinforcing—

Inland Steel Co., First National Bank Bldg., Chicago, Ill.

Steel Rim for Pneumatic

Wheels—
Sweet's Steel Co., Williamsport, Pa.

Steel, Rock Drill—

Braeburn Steel Co., Braeburn, Pa.
Colonial Steel Co., Pittsburgh, Pa.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
Patriarche & Bell, 215 Pearl St., N. Y.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Wheelock, Lovejoy & Co., 23 Cliff St., N. Y.

Steel, Roller Bearing—

Colonial Steel Co., Pittsburgh, Pa.

Kidd Bros. & Burgher Steel Wire Co., McKees Rocks, Pa.

Steel Rolls, Hardened.

Forged—
(See Rolls, Hardened, Forged Steel.)

Steel, Saw—

Colonial Steel Co., Pittsburgh, Pa.
Henry Disston & Sons, Philadelphia, Pa.

Hobson, Houghton & Co., Ltd., 98 John St., New York.

Wm. Jessop & Sons, Ltd., 91 John St., New York.

Geo. Nash & Co., 24 S. Clinton St., Chicago, Ill.

S. & C. Wardlow, 95 John St., N. Y.

Steel, Screw, in Round.

Square, &c.—
Finished Steel Co., Youngstown, O.

Steel, Self Hardening—

Armstrong Bros. Tool Co., Chicago, Ill.
Baldwin Steel Co., 133 Reade St., N. Y.

Heller Bros. Co., Newark, N. J.

Hobson, Houghton & Co., Ltd., 98 John St., New York.

Wm. Jessop & Sons, 91 John St., N. Y.

Samuel Osborn & Co., Boston, Mass.
McInnes Steel Co., Corry, Pa.

Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
Denham & Davis, 85-87 John St., N. Y.

Fairbanks Co., 416 Broome St., New York.

Arthur C. Harvey Co., Boston, Mass.

Hawkrige Bros., Boston, Mass.

Geo. Nash & Co., 24 S. Clinton St., Chicago, Ill.

Wm. S. Nicholls, 251 Broadway, N. Y.

Patriarche & Bell, 215 Pearl St., N. Y.

G. H. Schrock, 291 Pearl St., New York.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Edgar T. Ward & Sons, Boston, Mass.

Steel Sheets Punched to Order—

Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.
Hendrick Mfg. Co., Carbondale, Pa.
Chas. Mundt & Sons, 441 Pearl St., N. Y.

Steel, Shovel—
Colonial Steel Co., Pittsburgh, Pa.
La Belle Iron Works, Steubenville, O.

Steel, Show Card—
American Sheet & Tin Plate Co., Pittsburgh, Pa.

Steel, Spring—
Colonial Steel Co., Pittsburgh, Pa.
Harrow Spring Co., Kalamazoo, Mich.
Patriarche & Bell, 215 Pearl St., N. Y.
Sweet's Steel Co., Williamsport, Pa.

Steel, Stamping Special—
La Belle Iron Works, Steubenville, O.
Youngstown Iron & Steel Roofing Co., Youngstown, O.

Steel, Swedish—
(See Iron and Steel, Swedish.)

Steel, Tape Line—

Kenuff & Esser Co., 127 Fulton St., N. Y.
Steel, Tire—
Interstate Iron & Steel Co., First National Bank Bldg., Chicago, Ill.

Sweet's Steel Co., Williamsport, Pa.

Steel, Toe Calk—
Sweet's Steel Co., Williamsport, Pa.

Steel, Tool—
Lalduin Steel Co., 133 Reade St., N. Y.
Braeburn Steel Co., Braeburn, Pa.
Colonial Steel Co., Pittsburgh, Pa.
Columbia Bridge Co., Pittsburgh, Pa.
Henry Disston & Sons, Philadelphia, Pa.
Harrow Spring Co., Kalamazoo, Mich.
Heller Bros. Co., Newark, N. J.
Hobson, Houghton & Co., 98 John St., N. Y.
John Illingworth Steel Co., Frankford, Philadelphia, Pa.

Wm. Jessop & Sons, 91 John St., N. Y.
McInnes Steel Co., Ltd., Corry, Pa.
Samuel Osborn & Co., Boston, Mass.
S. & C. Wardlow, 95 John St., N. Y.

MERCHANTS.
Hermann Boker & Co., 101-103 Duane St., New York.

Bourne-Fuller Co., Cleveland, O.
Denman & Davis, 87 John St., N. Y.
Fairbanks Co., 416 Broome St., New York.
Walter Graham, Harrison Bldg., Philadelphia, Pa.

Arthur C. Harvey Co., Boston, Mass.
Harold McCalla, 619 N. Front St., Philadelphia, Pa.

George Nash & Co., 24 So. Clinton St., Chicago, Ill.

Wm. S. Nichols, 251 Broadway, N. Y.
Ogden & Wallace, 577 Greenwich St., N. Y.
Patriarche & Bell, 215 Pearl St., N. Y.
Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.

Phillips-Laffitte Co., Pennsylvania Bldg., Philadelphia, Pa.

Joseph T. Iverson & Son, 18 Milwaukee Ave., Chicago, Ill.

G. H. Schrock, 291 Pearl St., New York.
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.
Edgar T. Ward & Sons, Boston, Mass.

Whelock, Lovejoy & Co., 23 Cliff St., New York.

A. P. Wittman & Co., 233-237 Cherry St., Philadelphia, Pa.

Steel, Watch Spring—
Cary Spring Works, 240-242 W. 29th St., New York.

Geo. Nash & Co., 24 S. Clinton St., Chicago, Ill.

S. & C. Wardlow, 95 John St., N. Y.
Steel, Welded, Chrome Steel and Iron—

Chrome Steel Works, Chrome, N. J.

Steel Welding—
(See Welding, Iron and Steel, Electric and Thermit Processes.)

Steel Wire Brushes—
(See Brushes, Steel Wire.)

Steel Wire, Cast—
(See Wire, Cast Steel.)

Steel Works Machinery—
(See Rolling Mill Machinery.)

Steels, Buffer and Scraper—
Tuck Mfg. Co., Brockton, Mass.

Steels, Butcher, &c.—

American Cutlery Co., Chicago, Ill.
John Chaffin & Sons, 83 Cliff St., N. Y.
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Goodell Co., Antrim, N. H.
Landers, Frary & Clark, New Britain, Ct.
Nicholson File Co., Providence, R. I.

Wilkinson Shear & Cutlery Co., Reading, Pa.

Steelyards—
Bemis & Call Hardware & Tool Co., Springfield, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Steering Gears, Steam—

Pawling & Harnischfeger, Milwaukee.

Wickes Bros., Saginaw, Mich.

Stems, Valve—

Cleveland Cap Screw Co., Cleveland, O.

Stencils—

A. G. Monce, Unionville, Ct.
Geo. M. Ness, Jr., 61 Fulton St., N. Y.
New York Stencil Works, 100 Nassau St., New York.

Schwerdtle Stamp Co., Bridgeport, Ct.

Stenners, Kraut, Cedar—

Richmond Cedar Works, Richmond, Va.

Step Ladder Joints—
(See Joints, Step Ladder.)

Step Ladders—
(See Ladders, Step.)

Step Plates, Brass—
(See Plates, Brass, Step.)

Steps, Folding, Pantry and Library—

Udell Works, Indianapolis, Ind.

Steps, Pole—
(See Telegraph and Telephone Pole Supplies.)

Stereotype Metal—

Theo. Hiertz Metal Co., St. Louis, Mo.
Merchant & Evans Co., Philadelphia, Pa.
Pittsburgh White Metal Co., Pittsburgh.

N. & G. Taylor Co., Chestnut and 3d Sts., Philadelphia, Pa.

Stereotyping—

St. Louis Electrottype Foundry, St. Louis.

Stew Pans, Sectional—
(See Pans, Sectional Stew.)

Sticks, Clapper—

E. B. Estes & Sons, 45-47 John St., N. Y.

Sticks, Conduct—

E. B. Estes & Sons, 45-47 John St., N. Y.

Sticks, Emery and Corn-

dum
American Emery Wheel Works, Providence, R. I.

Sticks, Manicure—

E. B. Estes & Sons, 45-47 John St., N. Y.

Sticks, Plant—

(See Stakes and Sticks.)

Sticks, Polo and Hockey—

E. B. Estes & Sons, 45-47 John St., N. Y.

Sticks, Umbrella—

E. B. Estes & Sons, 45-47 John St., N. Y.

Stiffeners, Heel—

Louis Sacks, Newark, N. J.

Stills, Oil and Tar—

Dimmick Pipe Co., Birmingham, Ala.
Meehan Boiler & Construction Co., Lowellville, O.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Struthers, Wells & Co., Warren, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

Stills, Water—

E. B. Badger & Sons Co., Boston, Mass.

Stirrups, Machine—

Wm. H. Haskell Mfg. Co., Pawtucket.

Stirrups, Saddle—

Wrightsville Hardware Co., Wrightsville, Pa.

Stirrups, Timber—

(See Hangers and Stirrups.)

Stitching Machines, Wire—

(See Wire Stitching Machines.)

Stock Scales, Tanks—

(See Scales, Tanks.)

Stock Waters—

Chicago Wheel & Mfg. Co., 39-45 W.

Randolph St., Chicago, Ill.

Poughkeepsie Foundry & Machine Co.,

Poughkeepsie, N. Y.

Schreiber & Conchar Mfg. Co., Dubuque,

Ia.

Stocks and Dies, Black-**smiths—**

Butterfield & Co., Derby Line, Vt.

Stocks, Gun—

E. B. Estes & Sons, 45-47 John St., N. Y.

Stocks, Taps and Dies—

Acme Machinery Co., Cleveland, O.

American Die & Tool Co., Reading, Pa.

American Iron & Steel Mfg. Co., Lebanon, Pa.

Bay State Tap & Die Co., Taunton,

Mass.

C. H. Bealy & Co., 15-21 Clinton St.,

Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.

H. B. Brown & Co., East Hampton, Ct.

Butterfield & Co., Derby Line, Vt.

J. M. Carpenter Tap & Die Co., Paw-

tucket, R. I.

Champion Blower & Forge Co., Lancas-

ter, Pa.

Chicago Scale Co., 292-296 Jackson Boul-

evard, Chicago, Ill.

Curtis & Curtis Co., Bridgeport, Ct.

Fairbanks Co., 416 Broome St., N. Y.

Samuel Hall's Sons, 229-233 W. 10th St.,

New York.

Hart Mfg. Co., Cleveland, O.

Hollands Mfg. Co., Erie, Pa.

Humphries Mfg. Co., Mansfield, O.

Jarecki Mfg. Co., Erie, Pa.

J. M. King & Co., Waterford, N. Y.

Lincoln-Williams Twist Drill Co., Taun-

ton, Mass.

Morse Twist Drill & Machine Co., New

Bedford, Mass.

National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 111 Broadway,

New York.

Pinkerton Mfg. Co., 2631 N. 34th St.,

Philadelphia, Pa.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

D. Saunders Sons, Yonkers, N. Y.

Smith & Hemenway Co., 108-110 Duane

St., New York.

Standard Engineering Co., Ellwood City,

Pa.

Standard Tool Co., Cleveland, O.

Walworth Mfg. Co., Boston, Mass.

Wells Bros. Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield,

Mass.

Stokers, Mechanical—

Babcock & Wilcox Co., 85 Liberty St.,

New York.

Alfred Box & Co., Front and Poplar

Sts., Philadelphia, Pa.

Chicago Pneumatic Tool Co., Fisher

Bldg., Chicago, Ill.

Lough-Scott Co., 26 Cortlandt St., N. Y.

McClave-Brooks Co., Scranton, Pa.

Wm. Sellers & Co., Inc., Philadelphia.

Stirling Consolidated Boiler Co., 111

Broadway, New York.

Stone Cutters' Chisels—

(See Chisels, Brick, Stone Cutters', &c.)

Stone Cutters' Tools—

Solid Steel Tool & Forge Co., Tarentum,

Pa.

Stone Handling Machinery—

Browning Engineering Co., Cleveland, O.

Stone Molding Machines.**Planers, Saws, Wire—**

(See Molding Machines, Planers, Saws,

Wire.)

Stone Turning and Planing**Machines (combined)—**

Detrick & Harvey Machine Co., Balti-

more, Md.

Stone Working Machinery—

Birmingham Iron Foundry, Derby, Ct.

Farel Foundry & Mach. Co., Ansonia,

Ct.

J. Gilmore, Bennett Bldg., New York.

Ingersoll-Rand Co., 11 Broadway, N. Y.

F. R. Patch Mfg. Co., Rutland, Vt.

Stoners, Cherry—

Enterprise Mfg. Co., Philadelphia, Pa.

Goodell Co., Antrim, N. H.

John H. Graham & Co., 113 Chambers

St., New York.

Rollman Mfg. Co., Mt. Joy, Pa.

Stoners, Peach—

Rollman Mfg. Co., Mt. Joy, Pa.

Stones, Axe—

Chicago Wheel & Mfg. Co., 39-45 W.

Randolph St., Chicago, Ill.

Cleveland Stone Co., Cleveland, O.

Pike Mfg. Co., Pike, N. H.

Stones, Buhr, Mill—

C. O. Bartlett & Snow Co., Cleveland, O.

Case Mfg. Co., Columbus, O.

Stones, Corundum—

American Emery Wheel Works, Provi-

dence, R. I.

Norton Emery Wheel Co., Worcester,

Mass.

Vitrified Wheel Co., Westfield, Mass.

Stones, Curriers' and Tan-

ners—
Pike Mfg. Co., Pike, N. H.

Stones, Emery—
American Emery Wheel Works, Providence, R. I.
Bridgeport, Safety Emery Wheel Co.,
Bridgeport, Ct.
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Norton Emery Wheel Co., Worcester, Mass.
Pike Mfg. Co., Pike, N. H.
Vitrified Wheel Co., Westfield, Mass.
Stones, Gold Test—
Pike Mfg. Co., Pike, N. H.
Stones, Hacker—
Pike Mfg. Co., Pike, N. H.
Stones, Hand—
F. A. Reichardt & Co., 391 Broadway, New York.
Stones, India—
Norton Emery Wheel Co., Worcester, Mass.
Pike Mfg. Co., Pike, N. H.
Stones, Jack—
Arcade Mfg. Co., Freeport, Ill.
Columbia Grey Iron Co., Columbia, Pa.
Wrightsville Hardware Co., Wrightsville, Pa.
Stones, Oil and Water—
American Emery Wheel Works, Providence, R. I.
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Norton Emery Wheel Co., Worcester, Mass.
Pike Mfg. Co., Pike, N. H.
Star Corundum Wheel Co., Detroit, Mich.
Vitrified Wheel Co., Westfield, Mass.
Stones, Razor—
Chicago Wheel & Mfg. Co., 39 W. Randolph St., Chicago, Ill.
Norton Emery Wheel Co., Worcester, Mass.
Pike Mfg. Co., Pike, N. H.
Stones, Rubbing—
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Norton Emery Wheel Co., Worcester, Mass.
Pike Mfg. Co., Pike, N. H.
Stones, Seythe—
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Cleveland Stone Co., Cleveland, O.
Cutaway Harrow Co., Higginum, Ct.
Norton Emery Wheel Co., Worcester, Mass.
Pike Mfg. Co., Pike, N. H.
Stones, Whet—
Pike Mfg. Co., Pike, N. H.
Stools, Camp—
Stanley Works, New Britain, Ct.
Stools, Store—
(See Store Stools, Iron.)
Stoppers, Bottle—
Baird Machine Co., Oakville, Ct.
H. O. Canfield Co., Bridgeport, Ct.
New York Belting & Packing Co., 91-93 Chambers St., New York.
Taplin Mfg. Co., New Britain, Ct.
Stoppers, Ladle—
McCullough-Dalzell Crucible Co., Pittsburgh, Pa.
R. B. Seidel, Inc., 1331 Callowhill St., Philadelphia, Pa.
Stops, Bead—
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Stops, Bench—
Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
Millers Falls Co., 28 Warren St., N. Y.
Charles Morrill, 277 Broadway, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Vaughan & Bushnell Mfg. Co., Chicago.
Stops, Door—
Jos. Bardsley, 147-151 Baxter St., N. Y.
Caldwell Mfg. Co., Rochester, N. Y.
Chapin-Stephens Co., Pine Meadow, Ct.
E. B. Estes & Sons, 45-47 John St., N. Y.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.
Storage Bins, Coal—
Meehan Boiler & Construction Co., Lowellville, O.
Ritter-Conley Mfg. Co., Pittsburgh, Pa.
Store Door Shutter Screws—
(See Screws, Shutter, Store Door.)
Store Fixtures, Shelving, Counters, &c.—
J. D. Warren Mfg. Co., Chicago, Ill.
Store Fixtures, Wire—
W. S. Tyler Co., Cleveland, O.
Store Ladders, Trucks—
(See Ladders, Trucks.)
Store Stools, Iron—
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Storm Sash Hangers, &c.—
(See Hangers, &c.)
Storm Window Fasteners—
(See Fasteners, Storm Window.)
Stove Blanks—
Matthiessen & Hegeler Zinc Co., La Salle, Ill.
Stove Bolts—
(See Bolts.)
Stove Display Racks—
R. W. Whitehurst & Co., Norfolk, Va.
Stove Door Handles—
(See Trimmings, Stove.)
Stove Knobs—
(See Trimmings, Stove.)
Stove Pipe—
(See Pipe, Stove.)
Stove Pine Elbows—
(See Elbows, Stove Pipe.)
Stove Pipe Registers, Shelves, &c.—
(See Registers, Shelves, &c.)
Stove Repairs, Extension Grates, Backs, &c.—
Gray Iron Foundry Co., Reading, Pa.
Kramer Bros. Foundry Co., Dayton, O.
Schreiber & Conchar Mfg. Co., Dubuque, Ia.
Stoves and Ranges, Gas, Gasoline and Oil—
Columbia Grey Iron Co., Columbia, Pa.
Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.
Glazier Stove Co., Chelsea, Mich.
Hollands Mfg. Co., Erie, Pa.
Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.
Taylor & Boggis Foundry Co., Cleveland, O.
Stove Scrapers—
(See Cleaners, Flue.)

Stoves, Fire Brick—

Julian Kennedy, Pittsburgh, Pa.

G. W. McClure, Son & Co., Pittsburgh.

Stoves, Gas, Laundry—

Dangler Stove Co., Division American

Stove Co., Cleveland, O.

Schneider & Trenkamp Div., Am. Stove

Co., Cleveland, O.

Stoves, Lamp Chimney—

(See Heaters, Lamp Chimney.)

Stoves, Oil Lamp—

Fanner Mfg. Co., Cleveland, O.

Glazier Stove Co., Chelsea, Mich.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Taylor & Boggis Fdy. Co., Cleveland, O.

Stoves, Open Front—

Murdock-Shaw Co., Boston, Mass.

Stoves, Plasterers—

Thos. Carlin's Sons, Allegheny, Pa.

Stoves, Wood and Coal—

Chattanooga Car & Foundry Co., Chatta-

nooga, Tenn.

Chattanooga Roofing & Foundry Co.,

Chattanooga, Tenn.

Dangler Stove Co., Division American

Stove Co., Cleveland, O.

Heas-Snyder Co., Massillon, O.

Schneider & Trenkamp Co., Div. Ameri-

can Stove Co., Cleveland, O.

Wm. G. Willard, St. Louis, Mo.

Straight Blades—

(See Edges, Straight.)

Straightening and Cutting**Machines, Automatic Wire—**

Franklin Mfg. Co., New Haven, Ct.

E. J. Manville Mach. Co., Waterbury, Ct.

Straightening and Cutting**Machines, Sheet Metal—**

F. B. Shuster Co., New Haven, Ct.

Straightening and Cutting**Machines, Strip Metal—**

American Tube & Stamping Co., Bridge-

port, Ct.

Niagara Machine & Tool Co., Buffalo,

N. Y.

Peck, Stow & Wilcox Co., 27 Murray St.,

New York

Straightening and Cutting**Machines, Wire—**

Aiton Machine Co., 126 Liberty St., N. Y.

Baird Machine Co., Oakville, Ct.

Chandler & Farquhar Co., Boston, Mass.

Franklin Mfg. Co., New Haven, Ct.

Hoefor Mfg. Co., Freeport, Ill.

E. J. Manville Mach. Co., Waterbury, Ct.

A. H. Nilson Machine Co., Bridgeport, Ct.

F. B. Shuster Co., New Haven, Ct.

J. D. Smith Foundry Supply Co., Clevel-

and, O.

Wright Wire Co., Worcester, Mass.

MERCHANTS.

J. H. Dawson Machinery Co., 39-41 S.

Canal St., Chicago, Ill.

S. Obermayer Co., Cincinnati, O.

Stiles-Morse Co., Western Union Bldg.,

Chicago, Ill.

Straightening Machinery.**Plate—**

Bertsch & Co., Cambridge City, Ind.

Birdsboro Steel Foundry & Machine Co.,

Birdsboro, Pa.

Hilles & Jones Co., Wilmington, Del.

Lewis Foundry & Machine Co., Pitts-

burgh, Pa.

E. J. Manville Machine Co., Waterbury,

Ct.

R. S. Newbold & Son Co., Norristown,

Pa.

Nilas-Bement-Pond Co., 111 Broadway,

New York.

Peck, Stow & Wilcox Co., 27 Murray St.,

New York.

Philadelphia Roll & Machine Co., 23d St.

& Washington Ave., Philadelphia.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

Waterbury Farrel Foundry & Machine Co.,

Waterbury, Ct.

Williams, White & Co., Moline, Ill.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.

Joseph T. Ryerson & Son, 18-22 Milwau-

kee Ave., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted

St., Chicago, Ill.

Stiles-Morse Co., Western Union Bldg.,

Chicago, Ill.

Straightening Machines, An-**gle, Beam and Channel—**

Bertsch & Co., Cambridge City, Ind.

Birdsboro Steel Foundry & Machine Co.,

Birdsboro, Pa.

Hilles & Jones Co., Wilmington, Del.

Lewis Foundry & Machine Co., Pitts-

burgh, Pa.

Long & Allstatler Co., Hamilton, O.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Wm. Sellers & Co., Inc., 1690 Hamilton

St., Philadelphia, Pa.

United Engineering & Foundry Co., Pitts-

burgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Williams, White & Co., Moline, Ill.

MERCHANTS.

Fairbanks Co., 416 Broome St., New York.

Joseph T. Ryerson & Son, 18-22 Milwau-

kee Ave., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted

St., Chicago, Ill.

Straightening Machines,**Bar—**

Hartford Machine Screw Co., Hartford,

Ct.

Straightening Machines.**Pipe—**

Fischer Foundry & Machine Co., Pitts-

burgh, Pa.

Taylor-Wilson Mfg. Co., McKees Rocks,

Pa.

Straightening Machines,**Shaft—**

(See Shaft Straightening Machinery.)

Straightening Presses,**Axis—**

Badger State Machine Co., Janesville,

Wis.

Watson-Stillman Co., 46 Dey St., N. Y.

Wells Bros. Co., Greenfield, Mass.

Straightening Rolls—

(See Rolls, Bending and Straightening.)

Strainers—

(See Kitchen Articles, Wire.)

Strainers, Conductor Pipe—

Berger Bros. Co., 231-237 Arch St., Phila-

delphia, Pa.

Irger Mfg. Co., Canton, O.

Edward Darby & Sons, 233-235 Arch St.,

Philadelphia, Pa.

Edwards Mfg. Co., Cincinnati, O.

Gilbert & Bennett Mfg. Co., 277 Broad-

way, New York.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.

U. T. Hungerford Brass & Copper Co.,
497-506 Pearl St., New York.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Parker Wire Goods Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Strainers, Pipe—
American Spiral Pipe Works, 1173-1201 S.
Paulina St., Chicago, Ill.

Strainers, Sink—
H. Mueller Mfg. Co., Decatur, Ill.
Parker Wire Goods Co., Worcester, Mass.
Pritchard-Strong Co., Rochester, N. Y.
Wire Goods Co., Worcester, Mass.

Strainers, Suction—
Davis-Hansen Co., Oshkosh, Wis.

Strainers, Tea and Coffee—
(See Household Articles, Wire.)

**Strainers, Tea, Silver
Plated—**
International Silver Co., 9-13 Maiden
Lane, New York.

Strainers, Tube Well—
A. D. Cook, Lawrenceburg, Ind.

Strainers, Water—
H. Mueller Mfg. Co., Decatur, Ill.

Strap and T Hinges—
(See Hinges, Strap and T.)

**Strapping and Buffing Ma-
chines—**
(See Buffing and Polishing Machines.)

Straps, Anchor—
(See Telegraph and Telephone Pole Sup-
plies.)

Straps, Baggage Check—
American Railway Supply Co., 24 Park
Place, New York.

Straps, Box—
Cary Mfg. Co., 19-21 Roosevelt St., N. Y.

Straps, Curtain—
McKinnon Dash Co., Buffalo, N. Y.

Straps, Gas Pipe—
Berger Bros. Co., 231-237 Arch St., Phila-
delphia, Pa.

Straps, Sleigh Bell—
Bevin Bros. Mfg. Co., Easthampton, Ct.

Straw Knives—
(See Knives, Hay and Straw.)

Street Forks—
(See Forks, Hay, Manure, Spading, &c.)

Street Lamps, Scrapers—
(See Lamps, Scrapers.)

Stretchers, Box Strap—
Cary Mfg. Co., 19-21 Roosevelt St., N. Y.

Stretchers, Carpet—
Geo. S. Knapn, Bridgeport, Ct.

Stretchers, Curtain—
Peck, Stow & Wilcox Co., 27 Murray St., N.Y.

Stretchers, Electric Wire—
Potter Mfg. Co., Geneva, O.

**Stretchers, Fence and
Wire—**
Porter Screen Mfg. Co., Burlington, Vt.

Stretchers, Electric Wire—
Smith & Hemenway Co., 108-110 Duane
St., New York.

Stretchers, Glove—
E. B. Estes & Sons, 45-47 John St., N. Y.

Stretchers, Saw—
(See Rods, Saw.)

Stretchers, Trousers—
Covert Mfg. Co., West Troy, N. Y.

Stretchers, Lock and Latch—
(See Locks, Latches, &c.)

Stringers, Fish—
Andrew B. Hendryx Co., New Haven, Ct.

Stringers, Ham—
Oneida Community, Kenwood, N. Y.

Stringers, Sealing Wax—
(See Sealing Wax Strips.)

Strip Steel, Cold Rolled—
(See Steel, Cold Rolled Strip.)

Strips, Metallic Door—
Wagner Mfg. Co., Cedar Falls, Ia.

Stripping Devices, Razor—
Kampfe Bros., 8-12 Reade St., New York.

Stripping Machines, Razor—
A. L. Silberstein, 459-461 Broadway, N. Y.

Strops, Razor—
Kampfe Bros., 8-12 Reade St., New York.

**Structural, Iron and Steel
Work—**
National Cutlery Co., Detroit, Mich.

**Structural, Iron and Steel
Work—**
Pike Mfg. Co., Pike, N. H.

**Structural, Iron and Steel
Work—**
A. L. Silberstein, 459-461 Broadway, N. Y.

**Structural, Iron and Steel
Work—**
Smith & Hemenway Co., 108-110 Duane
St., New York.

**Structural, Iron and Steel
Work—**
American Bridge Co. of New York, 42
Broadway, New York.

**Structural, Iron and Steel
Work—**
Baltimore Bridge Co., Baltimore, Md.

**Structural, Iron and Steel
Work—**
Belmont Iron Works, Inc., Philadelphia.

**Structural, Iron and Steel
Work—**
Berlin Construction Co., 220 Broadway, N.Y.

**Structural, Iron and Steel
Work—**
Boston Bridge Works, Boston, Mass.

**Structural, Iron and Steel
Work—**
Browning Engineering Co., Cleveland, O.

**Structural, Iron and Steel
Work—**
Carnegie Steel Co., Pittsburgh, Pa.

**Structural, Iron and Steel
Work—**
J. B. & J. M. Cornell, 239 11th Ave., N.Y.

**Structural, Iron and Steel
Work—**
Kenwood Bridge Co., First National Bank
Bldg., Chicago, Ill.

**Structural, Iron and Steel
Work—**
W. N. Kratzer & Co., Pittsburgh, Pa.

**Structural, Iron and Steel
Work—**
James V. Marcus, Peoria, Ill.

**Structural, Iron and Steel
Work—**
Meehan Boiler & Construction Co., Low-
ellville, O.

**Structural, Iron and Steel
Work—**
Northern Engineering Works, Detroit.

**Structural, Iron and Steel
Work—**
Pittsburgh Steel Construction Co., Pitts-
burgh, Pa.

**Structural, Iron and Steel
Work—**
Lewis F. Shoemaker & Co., Harrison
Bldg., Philadelphia, Pa.

**Structural, Iron and Steel
Work—**
West Side Foundry Co., Troy, N. Y.

Structural Material—
Chester B. Albree Iron Works Co., Alle-
gheny, Pa.

Structural Material—
Allentown Rolling Mills, Allentown, Pa.

Structural Material—
American Bridge Co. of New York, 42
Broadway, New York.

Structural Material—
Baltimore Bridge Co., Baltimore, Md.

Structural Material—
Berlin Construction Co., Berlin, Ct.

Structural Material—
Bethlehem Foundry & Machine Co.,
South Bethlehem, Pa.

Structural Material—
Carnegie Steel Co., Pittsburgh, Pa.

Structural Material—
Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.

Structural Material—
Chesapeake Iron Works, Baltimore, Md.

Structural Material—
J. B. & J. M. Cornell, 239 11th Ave., N.Y.

Structural Material—
John Eichleay, Jr. Co., Pittsburgh, Pa.

Structural Material—
Forest City Steel & Iron Co., Cleveland.

Structural Material—
Henry A. Hittner's Sons, cor. Huntington
& Aramingo Aves., Philadelphia, Pa.

- Monarch Grubber Co., Lone Tree, Ia.
 Northern Engineering Works, Detroit.
 C. Pardee Works, Perth Amboy, N. J.
 Passaic Steel Co., Paterson, N. J.
 Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.
 Pittsburgh Steel Construction Co., Pittsburgh, Pa.
 Republic Iron & Steel Co., Stock Exchange Building, Chicago, Ill.
 Wm. B. Scalf & Sons Co., Pittsburgh, Pa.
 Lewis F. Shoemaker & Co., Harrison Bldg., Philadelphia, Pa.
- MERCHANTS.**
 Boston Bridge Works, Boston, Mass.
 Bourne-Fuller Co., Cleveland, O.
 Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.
 C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.
 McClellan & Orr, Monadnock Block, Chicago, Ill.
 James V. Marcus, Peoria, Ill.
 John B. Newkirk & Co., 15th and Market Sts., Philadelphia, Pa.
 Pierson & Co., 29 Broadway, New York.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel Iron Co., 69 N. Halsted St., Chicago, Ill.
- Stubs and Plates, Store Shutter—**
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
- Stud Bolts, Chains—**
 (See Bolts, Chains.)
- Studs, Brass and Iron—**
 American Iron & Steel Mfg. Co., Lebanon, Pa.
 Automatic Machine Co., Greenfield, Mass.
 Blake & Johnson, Waterbury, Ct.
 Boston Bolt Co., Boston, Mass.
 Chicago Screw Co., 2 No. Canal St., Chicago, Ill.
 Clark Bros. Bolt Co., Milldale, Ct.
 Hartford Machine Screw Co., Hartford, Ct.
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
 Pittsburgh Screw & Bolt Co., Pittsburgh.
 Progressive Mfg. Co., Torrington, Ct.
 St. Louis Screw Co., St. Louis, Mo.
- Studs, Dog Collar and Bag—**
 R. C. Jenkinson & Co., Newark, N. J.
- Studs, Harness—**
 R. C. Jenkinson & Co., Newark, N. J.
- Studs, Saws—**
 Wire Goods Co., Worcester, Mass.
- Studs, Saws—**
 Enterprise Mfg. Co., Philadelphia, Pa.
 Peck Stow & Wilcox Co., 27 Murray St., New York.
 Silver Mfg. Co., Salem, O.
- Stump Joints—**
 (See Joints, Stump.)
- Suction Faucets—**
 (See Faucets, Suction.)
- Sugar Arches—**
 Warsaw Elevator Co., Warsaw, N. Y.
- Sugar House Machinery—**
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Buffalo Forge Co., Buffalo, N. Y.
 J. B. & J. M. Cornell, 239 11th Ave., N. Y.
 Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.
- Dimmick Pipe Co., Birmingham, Ala.
 Farrel Foundry & Machine Co., Ansonia, Ct.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
- Sugar Houses, Complete—**
 J. B. & J. M. Cornell, 239 11th Ave., New York.
- Sugar Mill Machinery—**
 Erie Forge Co., Erie, Pa.
- Sulphuric Acid—**
 (See Acid, Sulphuric.)
- Summer Houses—**
 (See Houses, Wire, Summer.)
- Sun Dials—**
 Wm. Gardam & Son, 45-51 Rose St., N. Y.
- Superheaters, Steam—**
 Babcock & Wilcox Co., 85 Liberty St., New York.
 Parker Boiler Co., Pennsylvania Bldg., Philadelphia, Pa.
 Power Specialty Co., 111 Broadway, N. Y.
 Whitlock Coil Pipe Co., Hartford, Ct.
- Supplies, Architects' and Artists'—**
 Keuffel & Esser Co., 127 Fulton St., N. Y.
- Supplies, Foundry, Mill, &c.—**
 (See Foundry and Mill Supplies.)
- Supplies, Grinders' and Polishers'—**
 (See Grinders' and Polishers' Supplies.)
- Supplies, Tube, Well—**
 (See Well, Tube, Supplies.)
- Supply Pipes—**
 (See Pipes, Flush and Supply.)
- Supporters, Hose, Skirt, Drawers, &c.—**
 American Ring Co., Waterbury, Ct.
- Supports and Bars, Hammer—**
 I. E. Palmer, Middletown, Ct.
- Supports and Bolts, Sash—**
 Smith & Egge Mfg. Co., Bridgeport, Ct.
- Supports, Clothes Line—**
 Udel Works, Indianapolis, Ind.
- Supports, Counter—**
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
- Supports, Porch—**
 Columbia Grey Iron Co., Columbia, Pa.
 Gray Iron Foundry Co., Reading, Pa.
 Kramer Bros. Foundry Co., Dayton, O.
 Plunger & Henger Mfg. Co., St. Louis.
 Reading Hardware Co., Reading, Pa.
 Susquehanna Castings Co., Wrightsville, Pa.
- Supports, Counter—**
 A. C. Williams, Ravenna, O.
 Wrightsville Hardware Co., Wrightsville, Pa.
- Supports, Shelf—**
 (See Pins, Shelf.)
- Surface Grinders—**
 (See Grinders, Surface.)
- Surface Plates, Standard—**
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Gould & Eberhardt, Newark, N. J.
- Surfactors, Wood—**
 Lane Mfg. Co., Montpelier, Vt.
- Surgical Instruments—**
 F. A. Reichardt & Co., 391 Broadway, New York.
- Swage Blocks—**
 (See Blocks, Swage.)

Swages, Saw Tooth—
E. C. Atkins & Co., Indianapolis, Ind.
Henry Diston & Sons, Philadelphia, Pa.
National Saw Co., Newark, N. J.
Simonds Mfg. Co., Fitchburg, Mass.
Swaging Machines—
American Tube & Stamping Co., Bridgeport, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Excelsior Needle Co., Torrington, Ct.
Chas. Lefter & Co., Brooklyn, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
Williams, White & Co., Moline, Ill.
Swedish Iron and Steel—
(See Iron and Steel, Swedish.)
Sweepers, Carpet—
National Sweeper Co., Marion, Ind.
Streator Metal Stamping Co., Streator, Ill.
Sweepers, Lawn—
Philadelphia Lawn Mower Co., 3100-3109 Chestnut St., Philadelphia, Pa.
Sweeping Brushes—
(See Brushes, Whitewash, Horse, &c.)
Sweeping Machines, Street—
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Swings, Lawn—
A. Ruch's Sons Co., Elizabethtown, Pa.
F. E. Myers & Bro., Ashland, O.
Switch Stands—
American Valve & Meter Co., Cincinnati, O.
Switchboards—
C. & C. Electric Co., Garwood, N. J.
General Electric Co., Schenectady, N. Y.
Sprague Electric Co., 527 W. 34th St., New York.
Waterbury Co., 69 South St., N. Y.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
Zucker & Levett & Loeb Co., 526-530 West 25th St., New York.
Switches and Cut-outs, Electric—
H. W. Johns-Manville Co., 100 William St., New York.
Switches and Frogs, Railroad—
Allentown Rolling Mills, Allentown, Pa.
Atlas Car & Mfg. Co., Cleveland, O.
Barbour-Stockwell Co., Cambridgeport, Mass.
Thos. Carlin's Sons, Allegheny, Pa.
Indianapolis Switch & Frog Co., Springfield, O.
W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.
Arthur Koppel, 66 Broad St., N. Y.
Henry Lewis & Co., 26 S. 15th St., Philadelphia, Pa.
Ernst Wiener Co., 68 Broad St., N. Y.
Walter A. Zelnicker Supply Co., St. Louis, Mo.
MERCHANTS.
Hyde Bros. & Co., Pittsburgh, Pa.
Richardson & Co., Inc., Pittsburgh, Pa.
Steel Rail Supply Co., 100 Broadway, N. Y.
Switches, Electric Knife—
General Electric Co., Schenectady, N. Y.
Waterbury Co., 69 South St., N. Y.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Switching Ropes—
(See Ropes, Locomotive Switching.)
Swivel Forging Machines, Chain—
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
Swivels, Chain—
Bradlee & Co., Beach St. and E. Susquehanna Ave., Philadelphia, Pa.
Covert Mfg. Co., Troy, N. Y.
Keystone Drop Forge Works, Chester, Pa.
Lebanon Chain Works, Lebanon, Pa.
Onaida Community, Kenwood, N. Y.
Wire Goods Co., Worcester, Mass.
Swivels, Halter, Harness, &c.—
(See Snaps and Swivels, Halter, Harness, &c.)
Swivels, Rope—
Broderick & Bascom Rope Co., St. Louis.
Covert Mfg. Co., Troy, N. Y.
Keystone Drop Forge Works, Chester, Pa.
A. Leschen & Sons Rope Co., St. Louis.
W. & J. Tiebout, 118 Chambers St., New York.
Syrup Pitchers—
(See Pitchers, Silver Plated.)
Table Brackets, Cutlery, &c.—
(See Brackets, Cutlery, &c.)
Tables, Bottling—
Chase Foundry & Mfg. Co., Columbus, O.
Tables, Drafting—
Keuffel & Esser Co., 27 Fulton St., N. Y.
R. E. Kidder, Worcester, Mass.
Oliver Machinery Co., Grand Rapids, Mich.
Washburn Shops, Worcester, Mass.
Tables, Folding—
Maine Mfg. Co., Nashua, N. H.
Udell Works, Indianapolis, Ind.
Tables, Ironing—
Hill Driver Co., Worcester, Mass.
Tables, Locomotive Transfer—
(See Transfer Tables, Locomotive.)
Tables, Lunch Bar—
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Tables, Saw—
Colburn Machine Tool Co., Franklin, Pa.
Kimball Bros. & Sprague, Brockton, Mass.
Oliver Machinery Co., Grand Rapids, Mich.
Tables, Transfer—
(See Transfer Tables, Locomotive.)
Tablets, Bronze—
Glen Mfg. Co., Ellwood City, Pa.
Murdock-Shaw Co., Boston, Mass.
Tachodometers—
Veeder Mfg. Co., Hartford, Ct.
Tachometers—
(See Indicators, Speed. See also Tachodometers.)
Tack Claws, Hammers, Pullers—
(See Claws, Hammers, Pullers.)
Tack Machinery—
Kimball Bros. & Sprague, Brockton, Mass.
H. J. Miller's Sons, Bridgewater, Mass.
Henry Perkins Co., Bridgewater, Mass.
F. B. Shuster Co., New Haven, Ct.
Tack Plate Choppers and Slitters—
Henry Perkins Co., Bridgewater, Mass.

- Tack Wire—**
(See Wire, Tack.)
- Tackle Blocks, Pulleys, &c.—**
(See Blocks, Pulleys, &c.)
- Tackle, Fishing—**
Clark, Horrocks Co., Utica, N. Y.
Enterprise Mfg. Co., Akron, O.
- Tacks and Nails, Brass—**
(See Nails and Tacks.)
- Tacks and Nails, Shoe—**
Globe Mfg. Co., Taunton, Mass.
Grand Crossing Tack Co., Grand Crossing, Ill.
- H. J. Miller's Sons, Bridgewater, Mass.**
E. Phillips & Sons, South Hanover, Mass.
- Ripley & Bartlett, Plymouth, Mass.**
Shelton Co., Derby, Ct.
- Tacks and Nails, Zinc—**
Grand Crossing Tack Co., Grand Crossing, Ill.
- E. Phillips & Sons, South Hanover, Mass.**
- Tacks, Bill Poster and Railroad—**
Globe Mfg. Co., Taunton, Mass.
Shelton Co., Shelton, Ct.
- Tacks, Box, Basket, &c.—**
Globe Mfg. Co., Taunton, Mass.
Grand Crossing Tack Co., Grand Crossing, Ill.
- E. Phillips & Sons, South Hanover, Mass.**
Plymouth Mills, Plymouth, Mass.
Shelton Co., Shelton, Ct.
- Tacks, Brads, Finishing Nails, &c.—**
Cobb & Drew, Plymouth, Mass.
Globe Mfg. Co., Taunton, Mass.
Grand Crossing Tack Co., Grand Crossing, Ill.
- H. J. Miller's Sons, Bridgewater, Mass.**
Morgan Spring Co., Worcester, Mass.
Parker Wire Goods Co., Worcester, Mass.
E. Phillips & Sons, South Hanover, Mass.
- Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.**
Shelton Co., Shelton, Ct.
Wire Goods Co., Worcester, Mass.
- Tacks, Bronze—**
Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
- Tacks, Brush—**
Grand Crossing Tack Co., Grand Crossing, Ill.
- Tacks, Coopers—**
Grand Crossing Tack Co., Grand Crossing, Ill.
- Tacks, Copper—**
(See Nails and Tacks, Copper.)
- Tacks, Curtain—**
Grand Crossing Tack Co., Grand Crossing, Ill.
- Tacks, Double Head, Carpet—**
Pritchard-Strong Co., Rochester, N. Y.
- Tacks, Double-Pointed—**
Cobb & Drew, Plymouth, Mass.
W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
Grand Crossing Tack Co., Grand Crossing, Ill.
- Warner Wire Goods Co., Worcester, Mass.**
Shelton Co., Shelton, Ct.
- Wheeler & Co., Birmingham, N.Y.**
Is Co., Worcester, Mass.
- Wright Wire Co., Worcester, Mass.**
- Tacks, Galvanized—**
Keystone Nail Co., Philadelphia, Pa.
Shelton Co., Shelton, Ct.
- Tacks, Miners—**
Ripley & Bartlett, Plymouth, Mass.
Shelton Co., Shelton, Ct.
- Tacks, Rubber Head—**
H. O. Canfield Co., Bridenport, Ct.
Elastic Tip Co., Boston, Mass.
- Tacks, Thumb—**
Keuffel & Esser Co., 127 Fulton St., N. Y.
- Tacks, Tin Cap—**
Grand Crossing Tack Co., Grand Crossing, Ill.
- Tacks, Trimmers—**
Grand Crossing Tack Co., Grand Crossing, Ill.
- E. Phillips & Sons, South Hanover, Mass.**
Shelton Co., Shelton, Ct.
- Tacks, Upholsterers', Gimp, and Lace—**
Cobb & Drew, Plymouth, Mass.
Globe Mfg. Co., Taunton, Mass.
Grand Crossing Tack Co., Grand Crossing, Ill.
- E. Phillips & Sons, South Hanover, Mass.**
Ripley & Bartlett, Plymouth, Mass.
Shelton Co., Shelton, Ct.
- Tag Fasteners—**
(See Fasteners, Tag.)
- Tag Tying Machines, Merchandise—**
Climax Tag Co., Dayton, O.
- Tags, Brass—**
Arthur T. Rutter & Co., 256 Broadway, New York.
- Waterbury Brass Co., Waterbury, Ct.**
- Tallow Pots—**
(See Pots.)
- Tampers and Scrapers (combined)—**
Hubbard & Co., Pittsburgh, Pa.
- Tampers, Dirt and Sod—**
Root Bros. Co., Plymouth, O.
- Tampers, Railroad—**
Solid Steel Tool & Forge Co., Taunton, Pa.
- Tank Governors, &c.—**
(See Governors, &c.)
- Tank Work—**
Baltimore Bridge Co., Baltimore, Md.
Barry & Zecher Co., Lancaster, Pa.
East Jersey Pipe Co., Paterson, N. J.
Forest City Steel & Iron Co., Cleveland.
Franklin Boiler Works Co., Troy, N. Y.
S. Freeman & Sons Mfg. Co., Racine, Wis.
- Hendrick Mfg. Co., Carbondale, Pa.**
E. Keeler Co., Williamsport, Pa.
- Kenswood Bridge Co., First National Bank Bldg., Chicago, Ill.**
Mechan Boiler & Construction Co., Lowellville, O.
- R. S. Newbold & Son Co., Norristown, Pa.**
Northern Engineering Works, Detroit, Mich.
- Pennsylvania Engineering Works, New Castle, Pa.**
Pittsburgh Industrial Iron Works, Pittsburgh, Pa.
- Pittsburgh Steel Construction Co., Pittsburgh, Pa.**
Ritter-Conley Mfg. Co., Pittsburgh, Pa.
- Wm. B. Scaffa & Sons Co., Pittsburgh, Pa.**
Charles G. Shepard, Buffalo, N. Y.

Struthers, Wells Co., Warren, Pa.
Tudor Boiler Mfg. Co., Cincinnati, O.
Warren City Tank & Boiler Works, Warren, O.
Robert Wetherill & Co., Chester, Pa.
Wickes Bros., Saginaw, Mich.

Tanks, Automobile—

Avery Stamping Co., Cleveland, O.
E. B. Badger & Sons Co., Boston, Mass.
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

John R. Keim Mills, Buffalo, N. Y.
Wm. B. Scaife & Sons Co., Pittsburgh.

Tanks, Blow Off—

(See Blow Off Tanks.)

Tanks, Car—

East Jersey Pipe Co., Paterson, N. J.
Meehan Boiler & Construction Co., Lowellville, O.

Tanks, Chemical Proof—

Wm. B. Scaife & Sons Co., Pittsburgh.
Zucker & Levett & Loeb Co., 526-530 W. 25th St., New York.

Tanks, Cold Drawn Steel—

Avery Stamping Co., Cleveland, O.
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

John R. Keim Mills, Buffalo, N. Y.

Tanks, Dipping, Steel—

Meehan Boiler & Construction Co., Lowellville, O.

Wm. B. Scaife & Sons Co., Pittsburgh.

Tanks, Expansion and Anti-Expansion—

Wm. B. Scaife & Sons Co., Pittsburgh.

Tanks, Factory—

Barry & Zecher Co., Lancaster, Pa.
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

W. E. Caldwell Co., Louisville, Ky.

W. J. Clark Co., Salem, O.

East Jersey Pipe Co., Paterson, N. J.

Franklin Boiler Works Co., Troy, N. Y.

S. Freeman & Sons Mfg. Co., Racine, Wis.

E. Keeler Co., Williamsport, Pa.

Benj. F. Kelley & Son, 91 Liberty St., New York.

Kenwood Bridge Co., First National Bank Bldg., Chicago, Ill.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Meehan Boiler & Construction Co., Lowellville, O.

R. S. Newbold & Son Co., Norristown, Pa.

Pittsburgh Industrial Iron Works, Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Charles G. Shepard, Buffalo, N. Y.

Struthers-Wells Co., Warren, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

Vilter Mfg. Co., Milwaukee, Wis.

Wickes Bros., Saginaw, Mich.

Tanks, Gas, Air, Soda Water, &c.—

Avery Stamping Co., Cleveland, O.

East Jersey Pipe Co., Paterson, N. J.

S. Freeman & Sons Mfg. Co., Racine, Wis.

Hendrick Mfg. Co., Carbondale, Pa.

Ingersoll-Rand Co., 11 Broadway, N. Y.

Janney, Steinmetz & Co., Philadelphia.

E. Keeler Co., Williamsport, Pa.

Meehan Boiler & Construction Co., Lowellville, O.

H. Mueller Mfg. Co., Decatur, Ill.

Pennsylvania Engineering Works, New Castle, Pa.

Pressed Steel Tank Co., Milwaukee, Wis.

Water-Conley Mfg. Co., Pittsburgh, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

Wickes Bros., Saginaw, Mich.

Tanks, Grain—

Meehan Boiler & Construction Co., Lowellville, O.

Wm. B. Scaife & Sons Co., Pittsburgh.

Tanks, Hot Water—

W. E. Caldwell Co., Louisville, Ky.

Meehan Boiler & Construction Co., Lowellville, O.

Wm. B. Scaife & Sons, Pittsburgh, Pa.

Tanks, Mechanical Electro Plating—

Schreiber & Couch Mfg. Co., Dubuque, Ia.

Tanks, Oil—

W. E. Caldwell Co., Louisville, Ky.

Delphos Can Co., Delphos, O.

East Jersey Pipe Co., Paterson, N. J.

E. Keeler Co., Williamsport, Pa.

Meehan Boiler & Construction Co., Lowellville, O.

Pennsylvania Engineering Works, New Castle, Pa.

Republie Metalware Co., Buffalo, N. Y.

Water-Conley Mfg. Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Sidney Shepard & Co., Buffalo, N. Y.

Struthers, Wells & Co., Warren, Pa.

Warren City Tank & Boiler Works, Warren, O.

Tanks, Stock and Wind Mill, Steel—

Barry & Zecher Co., Lancaster, Pa.

W. E. Caldwell Co., Louisville, Ky.

East Jersey Pipe Co., Paterson, N. J.

Franklin Boiler Works Co., Troy, N. Y.

Hendrick Mfg. Co., Carbondale, Pa.

E. Keeler Co., Williamsport, Pa.

Kenwood Bridge Co., First National Bank Bldg., Chicago, Ill.

R. S. Newbold & Son Co., Norristown, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Struthers-Wells Co., Warren, Pa.

Vilter Mfg. Co., Milwaukee, Wis.

Warren City Tank & Boiler Works, Warren, O.

Tanks, Stock and Wind Mill, Wood—

W. E. Caldwell Co., Louisville, Ky.

R. W. Whitehurst Co., Norfolk, Va.

Tanks, Stove—

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Tanks, Wagon, Steel—

Wm. B. Scaife & Sons Co., Pittsburgh.

Wickes Bros., Saginaw, Mich.

Tannery Machinery—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.

Myrick Machine Co., Olean, N. Y.

Struthers, Wells Co., Warren, Pa.

Tap Bolts, Drills, &c.—

(See Bolts, Drills, &c.)

Tape Measures—

(See Measures, Tape.)

Taper Rolling Machines—

Williams, White & Co., Moline, Ill.

Taper Threading Machines—

Acme Machinery Co., Cleveland, O.
National Machinery Co., Tiffin, O.
Webster & Perks Tool Co., Springfield, O.

Tapping and Reaming Machines, Portable—

Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.
Gem Mfg. Co., Pittsburgh, Pa.
Ingersoll-Rand Co., 11 Broadway, N. Y.
Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
Stow Mfg. Co., Binghamton, N. Y.

Tapping and Reaming Machines, Multiple Spindle—

Acme Machinery Co., Cleveland, O.
National Machinery Co., Tiffin, O.

Tapping Attachments, Automatic—

Gould & Eberhardt, Newark, N. J.
Mutual Mfg. Co., Bridgeport, Ct.

Tapping Machines—

Acme Machinery Co., Cleveland, O.
American Tool Works Co., Cincinnati, O.
H. B. Brown & Co., East Hampton, Ct.
Butterfield & Co., Derby Line, Vt.
Cincinnati Machine Tool Co., Cincinnati, O.
Garvin Machine Co., Spring and Varick Sts., New York.
Gem Mfg. Co., Pittsburgh, Pa.
Gould & Eberhardt, Newark, N. J.
Grant Mfg. & Machine Co., Bridgeport, Ct.
Hartford Machine Screw Co., Hartford, Ct.
Harvey Hubbell, Bridgeport, Ct.
E. J. Manville Machine Co., Waterbury, Ct.

National Machine Co., Hartford, Ct.
National Machinery Co., Tiffin, O.
Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.
A. D. Quint, Hartford, Ct.
D. Saunders' Sons, Yonkers, N. Y.
Dwight Slate Machine Co., Hartford, Ct.
Standard Engineering Co., Ellwood City, Pa.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
Stow Mfg. Co., Binghamton, N. Y.
Webster & Perks Tool Co., Springfield, O.
Wiley & Russell Mfg. Co., Greenfield, Mass.

George E. Affleck, 107 Liberty St., N. Y.
Baird Machinery Co., Pittsburgh, Pa.
Carlin Machinery & Supply Co., Inc., Allegheny, Pa.

J. H. Dawson Machinery Co., 3941 S. Canal St., Chicago, Ill.
Fairbanks Co., 416 Broome St., New York.

Hill, Clarke & Co., Boston, Mass.
Marshall & Hushart Machinery Co., 62 S. Canal St., Chicago, Ill.
Motch & Merryweather Machinery Co., Cleveland, O.

Prentiss Tool & Supply Co., 115 Liberty St., New York.
Thornton Machinery Co., Providence R. I.
Vandyck, Churchill Co. & Day St., N. Y.

Tapping Machines, Automatic—

National Machinery Co., Tiffin, O.

Tapping Machines, Gas and Water Main—

H. Mueller Mfg. Co., Decatur, Ill.

Tapping Machines, Nut—

Acme Machinery Co., Cleveland, O.
Blake & Johnson, Waterbury, Ct.
H. B. Brown & Co., East Hampton, Ct.
Detrick & Harvey Machine Co., Baltimore, Md.

Hartford Machine Screw Co., Hartford, Ct.
Howard Iron Works, Buffalo, N. Y.
National Machinery Co., Tiffin, O.
Niles-Bement-Pond Co., 111 Broadway, New York.

Standard Engineering Co., Ellwood City, Pa.
Webster & Perks Tool Co., Springfield, O.
Wells Bros. Co., Greenfield, Mass.

Tapping Machines, Nut, Automatic—

Acme Machinery Co., Cleveland, O.

Tapping Machines, Turn-buckle—

Acme Machinery Co., Cleveland, O.
National Machinery Co., Tiffin, O.
Webster & Perks Tool Co., Springfield, O.

Taps—

Butterfield & Co., Derby Line, Vt.
Cleveland Twist Drill Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Ct.
Mount Carmel Bolt Co., Mt. Carmel, Ct.
Pratt & Whitney Co., Hartford, Ct.
St. Louis Screw Co., St. Louis, Mo.
Standard Tool Co., Cleveland, O.
Wells Bros. Co., Greenfield, Mass.
Whitman & Barnes Mfg. Co., Chicago, Ill.
Wiley & Russell Mfg. Co., Greenfield, Mass.

Taps and Dies— (See Stocks, Taps and Dies.)

Taps and Drills—

Bay State Tap & Die Co., Taunton, Mass.
Chas. H. Bealy & Co., 15-21 Clinton St., Chicago, Ill.
Butterfield & Co., Derby Line, Vt.
J. M. Carpenter Tap & Die Co., Pawtucket, R. I.
Champion Blower & Forge Co., Lancaster, Pa.
Chicago Screw Co., 2 No. Canal St., Chicago, Ill.
Cleveland Twist Drill Co., Cleveland, O.
Fairbanks Co., 416 Broome St., N. Y.
Goodell-Pratt Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Niles-Bement-Pond Co., 111 Broadway, New York.
Pratt & Whitney Co., Hartford, Ct.
E. F. Reece Co., Greenfield, Mass.
St. Louis Screw Co., St. Louis, Mo.
Standard Tool Co., Cleveland, O.
Wells Bros. Co., Greenfield, Mass.
Whitman & Barnes Mfg. Co., Chicago, Ill.
Wiley & Russell Mfg. Co., Greenfield, Mass.

Taps and Reamers, Pipe—

American Die & Tool Co., Reading, Pa.
Bay State Tap & Die Co., Taunton, Mass.
Butterfield & Co., Derby Line, Vt.
J. M. Carpenter Tap & Die Co., Pawtucket, R. I.
Fairbanks Co., 416 Broome St., N. Y.
Morse Twist Drill & Machine Co., New Bedford, Mass.
H. Mueller Mfg. Co., Decatur, Ill.
Niles-Bement-Pond Co., 111 Broadway, New York.
Pratt & Whitney Co., Hartford, Ct.
E. F. Reece Co., Greenfield, Mass.

- D. Saunders' Sons, Yonkers, N. Y.
 Standard Tool Co., Cleveland, O.
 Walworth Mfg. Co., Boston, Mass.
 Wells Bros. Co., Greenfield, Mass.
 Whitman & Barnes Mfg. Co., Chicago.
 Wiley & Russell Mfg. Co., Greenfield, Mass.
- Taps, Champagne—**
 Erie Specialty Co., Erie, Pa.
 Lenders, Frary & Clark, New Britain, Ct.
 Utica Drop Forge & Tool Co., Utica, N. Y.
- Taps, Collapsible and Adjustable—**
 Geometric Tool Co., New Haven, Ct.
 Pinkerton Mfg. Co., 2631 N. 34th St., Philadelphia, Pa.
- Tar Furnaces—**
 (See Furnaces, Portable, &c.)
- Tar Paper Saturating Machines—**
 (See Saturating Machines for Tar Paper.)
- Tea Bells, Kettles, &c.—**
 (See Bells, Kettles, &c.)
- Tees—**
 (See Angles and Tees.)
- Teeth, Bundle Carrier—**
 Harrow Spring Co., Kalamazoo, Mich.
- Teeth, Older Mill—**
 Shelton Co., Shelton, Ct.
- Teeth, Coal Breaker—**
 Keystone Drop Forge Works, Chester, Pa.
- Teeth, Harrow—**
 Inland Steel Co., First National Bank Bldg., Chicago, Ill.
 M. Lanz & Sons, Pittsburgh, Pa.
 Republic Iron & Steel Co., Chicago, Ill.
- Teeth, Hay Loading—**
 W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
- Teeth, Hay Rake and Tedder—**
 Harrow Spring Co., Kalamazoo, Mich.
- Teeth, Threshing Machine—**
 Keystone Drop Forge Works, Chester, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 Rhode Island Tool Co., Providence, R. I.
 Transue & Williams Co., Alliance, O.
- Telegraph and Telephone Goods—**
 H. H. Franklin Mfg. Co., Syracuse, N. Y.
 Kilborn & Bishop Co., New Haven, Ct.
 M. Lanz & Sons, Pittsburgh, Pa.
 W. B. Ostrander & Co., 22 Dey St., New York.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Telegraph and Telephone Pole Line Equipment—**
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
 Hubbard & Co., Pittsburgh, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 M. Lanz & Sons, Pittsburgh, Pa.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
 Republic Iron & Steel Co., Chicago, Ill.
- Telegraph and Telephone Pole Supplies (Pins, Brackets, Cross Arms, Cleats, Cross Arm Braces, Steps, &c.)—**
 American Iron & Steel Mfg. Co., Lebanon, Pa.
 Billings & Spencer Co., Hartford, Ct.
- E. B. Estes & Sons, 45-47 John St., N. Y.
 Hubbard & Co., Pittsburgh, Pa.
 Inland Steel Co., First National Bank Bldg., Chicago, Ill.
 Kilborn & Bishop Co., New Haven, Ct.
 M. Lanz & Sons, Pittsburgh, Pa.
 New Castle Forge & Bolt Co., New Castle, Pa.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
 Nicetown Plate Washer Co., 1822-1850 W. Juniata St., Philadelphia, Pa.
 Strieby & Foot Co., Newark, N. J.
- Telegraph and Telephone Wire—**
 (See Wires, Electrical.)
- Telegraph Pole Spoons—**
 (See Shovels and Spoons, Pole.)
- Telephone and Telegraph Goods—**
 (See Telegraph and Telephone Goods.)
- Telephone Bells—**
 (See Bells, Telephone.)
- Telescopes, Rifle and Pistol—**
 J. Stevens Arms & Tool Co., Chicopee Falls, Mass.
- Temperature Recording Instruments—**
 (See Recording Instruments, Temperature, also Thermometers.)
- Tempering Compounds—**
 Phillips-Laffitte Co., Pennsylvania Bldg., Philadelphia, Pa.
- Ten Pins and Balls—**
 (See Balls and Pins.)
- Tenon Machines, Spoke—**
 (See Spoke Tenon Machines.)
- Tenoning Machines—**
 W. F. & John Barnes Co., Rockford, Ill.
 Greenlee Bros. & Co., Rockford, Ill.
 Oliver Machinery Co., Grand Rapids, Mich.
- Tension Carriages, Rope Transmission—**
 H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
 Case Mfg. Co., Columbus, O.
 Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.
- Terne Plate—**
 (See Plate, Tin and Terne.)
- Testers, Center—**
 J. T. Slocumb Co., Providence, R. I.
 L. S. Starrett Co., Athol, Mass.
- Testers, Flour—**
 E. C. Atkins & Co., Indianapolis, Ind.
- Testing Bureau, Rails and Railway Material—**
 Robert W. Hunt & Co., 66 B'way, N. Y.
- Testing Laboratories, Physical—**
 Henry Souther Engineering Co., Hartford, Ct.
- Testing Machines, Cement—**
 Fairbanks Co., 416 Broome St., N. Y.
 Wm. Sellers & Co. (Inc.), Philadelphia.
- Testing Machines, Chain—**
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Testing Machines, Metal—**
 Fairbanks Co., 416 Broome St., N. Y.
 Wm. Sellers & Co. (Inc.), Philadelphia.
 United Engineering & Foundry Co., Pittsburgh, Pa.
- Testing Machines, Oil—**
 Pratt & Whitney Co., Hartford, Ct.

Testing Machines, Pipe-

Fischer Foundry & Machine Co., Pittsburgh, Pa.

Taylor-Wilson Co., McKees Rocks, Pa.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.**Testing Machines, Torsion-**

Pratt & Whitney Co., Hartford, Ct.

Testing Machines, Wire-

Morgan Construction Co., Worcester, Mass.

Testing Presses, Pipe-

Taylor-Wilson Mfg. Co., McKees Rocks, Pa.

Watson-Stillman Co., 46 Dey St., N. Y.

Testing Scales, Cement-

(See Scales, Cement Testing.)

Testing Sets, Electric-

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Tests, Drop-Case Mfg. Co., Columbus, O.
Whiting Foundry Equipment Co., Harvey, Ill.**Tethers, Animal-**Athol Machine Co., Athol, Mass.
Bridgeport Chain Co., Bridgeport, Ct.**Textile Machinery-**Dodge Mfg. Co., Mishawaka, Ind.
Mossberg Wrench Co., Central Falls, R. I.**MERCHANTS.**

Thornton Machinery Co., Providence, R. I.

Thawing Steamers-

(See Steamers.)

Thermit Process Welding

Goldschmidt Thermit Co., 43 Exchange Pl., New York.

Thermometers-

American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Edward Brown & Son, 311½ Walnut St., Philadelphia, Pa.

Crosby Steam Gauge & Valve Co., Boston.

Geo. S. Knapp, Bridgeport, Ct.

Thermometers, Recording-

Bristol Co., Waterbury, Ct.

Thermometers, SilverPlated
International Silver Co., 9-13 Maiden Lane, New York.**Thermostats-**

W. R. Ostrander & Co., 22 Dey St., New York.

Thimble Skeins and Boxes-

(See Skeins, Thimble, and Boxes.)

Thimbles and Hooks-

(See Hooks and Thimbles.)

Thimbles, Guy-

M. Lanz & Sons, Pittsburgh, Pa.

Thimbles and Rings, Stove

Pipe-

City Forge & Iron Works, Dayton, O.
Kramer Bros. Foundry Co., Dayton, O.**Thimbles, Rope-**Broderick & Bascom Rope Co., St. Louis.
Covert Mfg. Co., Troy, N. Y.Jackson Mfg. Co., Harrisburg, Pa.
M. Lanz & Sons, Pittsburgh, Pa.A. Leschen & Sons Rope Co., St. Louis.
A. S. Moras Co., Boston, Mass.

Williamsport Wire Rope Co., Williamsport, Pa.

Thread Cutting Machines-Acme Machinery Co., Cleveland, O.
Pratt & Whitney Co., Hartford, Ct.**Thread Rolling Machines, Screw-**Acme Machinery Co., Cleveland, O.
Blake & Johnson, Waterbury, Ct.

E. J. Manville Machine Co., Waterbury, Ct.

Mount Carmel Bolt Co., Mt. Carmel, Ct.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Threaders, Automatic Bolt-
Acme Machinery Co., Cleveland, O.

National Machinery Co., Tiffin, O.

Threaders, Bicycle Spoke-
Blake & Johnson, Waterbury, Ct.

Detrick & Harvey Machine Co., Baltimore, Md.

Geometric Tool Co., New Haven, Ct.

Gondell-Pratt Co., Greenfield, Mass.

E. J. Manville Machine Co., Waterbury, Ct.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Webster & Perks Tool Co., Springfield, O.

Threaders, Bolt-
Acme Machinery Co., Cleveland, O.

Blake & Johnson, Waterbury, Ct.

H. B. Brown & Co., East Hampton, Ct.

Asa S. Cook Co., Hartford, Ct.

Detrick & Harvey Machine Co., Baltimore, Md.

Fairbanks Co., 416 Broome St., New York.

Hartford Machine Screw Co., Hartford, Ct.

E. J. Manville Machine Co., Waterbury, Ct.

National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.

E. F. Rees Co., Greenfield, Mass.

Webster & Perks Tool Co., Springfield, O.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Threaders, Lag Screw-
Blake & Johnson, Waterbury, Ct.

Asa S. Cook Co., Hartford, Ct.

National Machinery Co., Tiffin, O.

Threaders, Pipe-
Bignall & Keeler Mfg. Co., Edwardsville, Ill.

National Machinery Co., Tiffin, O.

Stoecker Foundry & Mfg. Co., Myerstown, Pa.

Walworth Mfg. Co., Boston, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Threaders, Wagon Skein-
Acme Machinery Co., Cleveland, O.

Webster & Perks Tool Co., Springfield, O.

Threading and Cutting Machines, Pipe-
(See Pipe Cutting and Threading Machines.)**Threading Lathes-**
(See Lathes, Automatic Screw Threading.)**Threading Machines, Lathe and Couch Screw-**
Blake & Johnson, Waterbury, Ct.**Threading Machines, Sheet Metal-**
E. W. Bliss Co., Brooklyn, N. Y.

Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Threading Tools-
(See Tools, Thread Cutting Lathe.)**Threshing Machine Teeth-**
(See Teeth, Threshing Machine.)**Throwing Shot-**
A. C. Williams, Ravenna, O.

Thumb Nut and Screw Blanks—

(See Blanks.)

Thumb Nuts, Screws—

(See Nuts, Screws.)

Ticket Dating Stamps—

(See Stamps, Dating Railroad Ticket.)

Ticket Hooks, Punches—

(See Hooks, Punches.)

Tie-out Chains—

(See Tethers, Animal.)

Tie Rods—

(See Rods, Tie.)

Ties, Bale—

Adam's Steel & Wire Works, Joliet, Ill.
Dillon-Griswold Wire Co., Sterling, Ill.
Grand Crossing Tack Co., Grand Crossing, Ill.
Griswold Wire Co., Braddock, Pa.
Ohio Bale Tie Co., Cleveland, O.
H. P. & H. F. Wilson, 577-579 10th Ave., New York.

Ties, Cattle and Horse—

Bridgeport Chain Co., Bridgeport, Ct.
Covert Mfg. Co., Troy, N. Y.
Kentucky Chain Co., Frankfort, Ky.
Oneida Community, Kenwood, N. Y.
Seneca Chain Co., Kent, O.
Standard Chain Co., Pittsburgh, Pa.

Ties, Cotton—

American Tube & Stamping Co., Bridgeport, Ct.
Carnegie Steel Co., Pittsburgh, Pa.
Pittsburgh Steel Co., Pittsburgh, Pa.

Ties, Steel, for Industrial Works, Mines, Plantations, &c.—

Avery Stamping Co., Cleveland, O.
Ties, Steel Railroad—
Atlas Car & Mfg. Co., Cleveland, O.
Avery Stamping Co., Cleveland, O.
Carnegie Steel Co., Pittsburgh, Pa.
Arthur Koppel, 66 Broad St., New York.
Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

Ties, Wall—

Cleveland Wire Spring Co., Cleveland, O.

Tighteners, Belt—

(See Belt Tighteners.)

Tile Machinery—

Consolidated Press & Tool Co., 95-100 N. Clinton St., Chicago, Ill.
F. R. Patch Mfg. Co., Rutland, Vt.

Tile, Oven—

Harbison-Walker Refractories Co., Pittsburgh, Pa.
Hayes Run Fire Brick Co., Orris, Pa.
Laclede Fire Brick Mfg. Co., St. Louis.
Freshey Fire Brick Works, Taunton, Mass.

Tiles, Clay Roofing—

Henry Mauer & Son, 420 E. 23d St., N. Y.

Tiles, Grate, Flooring, &c.—

Murdock-Shaw Co., Boston, Mass.

Tiles, Metallic Roofing—

Berger Mfg. Co., Canton, O.
Edwards Mfg. Co., Cincinnati, O.
Merchant & Evans Co., Philadelphia, Pa.

Tiles, Metallic, Wainscot, Wall, &c.—

Edwards Mfg. Co., Cincinnati, O.
New York Metal Ceiling Co., 537-539 W. 24th St., New York.

Tiling or Ditching Shovels—

(See Shovels, Tiling or Ditching.)

Tiling, Rubber, Interlocking—

New York Belting & Packing Co., 91-93 Chambers St., New York.

Tiling, Steel Floor—

American Tube & Stamping Co., Bridgeport, Ct.

Timber Dollies, Dogs, Scribes, Stirrups, &c.—

(See Dollies, Dogs, Scribes, Stirrups, &c.)

Timber Grapples—

(See Irons, Grappling.)

Timber Unloaders—

Soule Steam Food Works, Meridian, Miss.

Time Checks—

(See Checks.)

Time Detectors—

(See Clocks, Watchman's.)

Tin—

American Metal Co., 52 Broadway, N. Y.
Empire Metal Co., Syracuse, N. Y.
Arthur C. Harvey Co., Boston, Mass.
Hendricks Bros., 49 Cliff St., New York.
Theo. Hiertz Metal Co., St. Louis, Mo.
Merchant & Evans Co., Philadelphia, Pa.
Pittsburgh White Metal Co., Pittsburgh.
Arthur T. Butler & Co., 256 Broadway, New York.
J. J. Ryan & Co., 68-74 W. Monroe St., Chicago, Ill.

N. & G. Taylor Co., Chestnut and 3d Sts., Philadelphia, Pa.

Waite, Ranlet & Co., Boston, Mass.

Walsh's Sons & Co., Newark, N. J.

Tin Boxes, Pails, &c.—

(See Boxes, Pails, &c.)

Tin, Continuous Roofing—

(See Roofing in Rolls.)

Tin Foil Rolling Mills—

(See Mills for Rolling Tin Foil.)

Tin, Perforated—

Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.
Hendrick Mfg. Co., Carbondale, Pa.
Chas. Mundt & Sons, 441-447 Pearl St., New York.

Tin, Phosphor—

Crescent Phosphorized Metal Co., Philadelphia, Pa.

R. F. Lang, 2-6 Old Slip, N. Y.

Tin Plate—

(See Plate, Tin and Terne.)

Tin Plate Machinery—

American Furnace & Machine Co., Pittsburgh, Pa.
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

Erie Forge Co., Erie, Pa.

Fawcett Machine Co., Pittsburgh, Pa.

Mesta Machine Co., Pittsburgh, Pa.

R. S. Newbold & Son Co., Norristown, Pa.

Pennsylvania Engineering Works, New Castle, Pa.

Philadelphia Iron & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

Poole Engineering & Machine Co., Baltimore, Md.

Wm. Swindell & Bro., Pittsburgh, Pa.

Tin Plates, Dairy—

American Sheet & Tin Plate Co., Pittsburgh, Pa.

Tin Roofing—

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

N. & G. Taylor Co., Chestnut and 3d Sts., Philadelphia, Pa.

Tin, Taggers'—
American Sheet & Tin Plate Co., Pittsburgh, Pa.

N. & G. Taylor Co., Chestnut & Third Sts., Philadelphia, Pa.

Tincture Presses—

(See Presses, Tincture.)

Tinned Sheets, Large Size—
American Sheet & Tin Plate Co., Pittsburgh, Pa.

N. & G. Taylor Co., Chestnut & Third Sts., Philadelphia, Pa.

Tinners' and Plumbers' Furnaces—

(See Furnaces, Plumbers' and Tinners')
Tinners' Rules, Shears,

Snips, Stakes—
(See Rules, Shears, Snips, Stakes.)

Tinners' Tools and Machines—

Badger State Machine Co., Janesville, Wis.

Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

N. & G. Taylor Co., Chestnut and 3d Sts., Philadelphia, Pa.

Tinners' Tools—

Arcade Mfg. Co., Freeport, Ill.
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Columbia Grey Iron Co., Columbia, Pa.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

E. Phillips & Son, South Haver, Mass.
Pleuger & Henger Mfg. Co., St. Louis, Mo.
Republic Metalware Co., Buffalo, N. Y.
Schreiber & Conchar Mfg. Co., Dubuque, Ia.

Sturges & Burn Mfg. Co., Chicago, Ill.
A. C. Williams, Ravenna, O.

Wire Novelty Mfg. Co., West Haven, Ct.

Tinning—

Avery Stamping Co., Cleveland, O.
John R. Keim Mills, Buffalo, N. Y.
Harold McCalla, 619 N. Front St., Philadelphia, Pa.

Republic Metalware Co., Buffalo, N. Y.
Schreiber & Conchar Mfg. Co., Dubuque, Ia.

Tinning Machines—

R. S. Newbold & Son Co., Norristown, Pa.

Tins, Pie and Cake—

Republic Metalware Co., Buffalo, N. Y.

Tinware, Japanned—

Republic Metalware Co., Buffalo, N. Y.

Tinware Machinery—

Adrance Machine Works, Brooklyn, N. Y.
E. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.
F. B. Shuster Co., New Haven, Ct.

Tinware, Pieced and Stamped—

Lalance & Grosjean Mfg. Co., 19 Cliff St., New York.

Republic Metalware Co., Buffalo, N. Y.
Sturges & Burn Mfg. Co., Chicago, Ill.

Tipples, Coal—

Brown Hoisting Machinery Co., Cleveland, O.

Interstate Engineering Co., Bedford, O.
Jeffrey Mfg. Co., Columbus, O.

Meehan Boiler & Construction Co., Lowellville, O.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Tips and Fenders, Rubber—
H. O. Canfield Co., Bridgeport, Ct.
New York Belting & Packing Co., 91-93 Chambers St., New York.

Tip, Chair and Crutch—
Elastic Tip Co., Boston, Mass.

New York Belting & Packing Co., 91-93 Chambers St., New York.

Tips, Hame—
Walter R. Woodruff & Sons Co., Mt. Carmel, Ct.

Tips, or Sockets, Shaft, Yoke, Pole and Whiffletree—

Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

Tips, Screw—
Elastic Tip Co., Boston, Mass.

Tire Benders, Bolts, &c.—
(See Benders, Bolts, &c.)

Tire Repair Outfits and Supplies—

Scorill Mfg. Co., Waterbury, Ct.

Tire Shrinkers—
Champion Blower & Forge Co., Lancaster, Pa.

Tires, Baby Cab, Rubber—
Springfield Tire & Rubber Co., Springfield, O.

Tires, Car and Locomotive—
Carnegie Steel Co., Pittsburgh, Pa.

Chrome Steel Works, Chrome, N. J.

Tires, Steel—
Standard Welding Co., Cleveland, O.

Toasters—
Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.

Middleton Mfg. Co., Middleton, O.

Parker Wire Goods Co., Worcester, Mass.
Schneider & Trenkamp Division, American Stove Co., Cleveland, O.

(See also Kitchen Articles, Wire.)

Toasters, Omelet Chaffing Dish—

New York Stamping Co., Brooklyn, N. Y.

Tobacco Boxes, Cutters, &c.—
(See Boxes, Cutters, &c.)

Toe Calks—
(See Calks.)

Toggles, Chain—
Seneca Chain Co., Kent, O.

Toggles, Screw—
New Jersey Foundry & Machine Co., 9-13 Murray St., New York.

Toilet Clippers—
(See Clippers, Horse and Toilet.)

Tokens, Metallic—
American Railway Supply Co., 24 Park Place, New York.

Tomato Guards—
(See Guards, Flower and Tomato.)

Tongs—
(See Shovels, Tongs, Pokers, Fire Sets, &c.)

Tongs, Blacksmiths'—
Hav-Rudden Mfg. Co., Brooklyn, N. Y.

Heller Bros. Co., Newark, N. J.

Vaughan & Bushnell Mfg. Co., Chicago.

Tongs, Carbol—
Billings & Spencer Co., Hartford, Ct.

Tongs, Coal—
Fanner Mfg. Co., Cleveland, O.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers
St., New York.

Tongs, Crucible—
Byram & Co., Inc., Detroit, Mich.
S. Obermayer Co., Cincinnati, O.

Tongs, Granite Tool—
Trow & Holden, Barre, Vt.

Tongs, Ice—
Fanner Mfg. Co., Cleveland, O.
Gifford-Wood Co., Arlington, Mass.
Hay-Budden Mfg. Co., Brooklyn, N. Y.
Louden Machinery Co., Fairfield, Ia.
Vaughan & Bushnell Mfg. Co., Chicago.
L. & I. J. White Co., Buffalo, N. Y.

Tongs, Pipe—
Barnes Tool Co., New Haven, Ct.
Hollands Mfg. Co., Erie, Pa.
Jarecki Mfg. Co., Erie, Pa.
Kilborn & Bishop Co., New Haven, Ct.
H. Mueller Mfg. Co., Decatur, Ill.
D. Saunders' Sons, Yonkers, N. Y.
Trimont Mfg. Co., Roxbury, Mass.
Walworth Mfg. Co., Boston, Mass.

Tongs, Pipe Hanger—
Berger Bros. Co., 231-237 Arch St., Phila-
delphia, Pa.

Tongs, Rail—
Solid Steel Tool & Forge Co., Tarentum,
Pa.

Tongs, Roofing—
Niagara Machine & Tool Works, Buffalo,
N. Y.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Tongs, Skidding—
Peter Gerlach Co., Cleveland, O.

Tongs, Track—
Vaughan & Bushnell Mfg. Co., Chicago.

Tool Boxes, Chests, Grinders, Holders—
(See Boxes, Chests, Grinders, Holders.)

Tool Makers' Clamps—
(See Clamps, Tool Makers'.)

Tool Room Enclosures, Steel—
Merritt & Co., 1024-1028 Ridge Ave., Phila-
delphia, Pa.

Tool Sets—
(See Sets, Screw Driver and Tool.)

Tool Sets, Garden—
(See Sets, Garden Tool.)

Tool Sets, Hollow Handle—
(See Sets, Tool, Hollow Handle.)

Tool Steel Balls—
(See Balls, Steel.)

Tools and Supplies, Factory, Railway, &c., Dealers in—
Block-Pollak Iron Co., Cincinnati, O.
Irving Mfg. & Tool Co., 157 Chambers St.,
New York.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Patterson, Gottfried & Hunter, Ltd., 146-
150 Centre St., New York.

Joseph T. Ryerson & Son, 18-22 Milwan-
kee Ave., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted
Co., Chicago, Ill.

Sebastian Lathie Co., Cincinnati, O.
Wickes Bros., Saginaw, Mich.
C. C. Wormer Machinery Co., Detroit,
Mich.

Walter A. Zelnicker Supply Co., St.
Louis, Mo.

Tools, Automatic Boring—
Millers Falls Co., 23 Warren St., N. Y.

**Tools, Boiler Makers', Butcher-
er, &c.—**
(See Boiler Makers', Butcher, &c.)

Tools, Boring—
(See Boring Tools.)

Tools, Brass Working—
Blake & Johnson, Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.

E. J. Manville Machine Co., Waterbury,
Ct.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Pratt & Whitney Co., Hartford, Ct.
Whitcomb-Blaisdell Machine Tool Co.,
Worcester, Mass.

Tools, Carriage Makers'—
Chapin-Stephens Co., Pine Meadow, Ct.
Hobbs Mfg. Co., Worcester, Mass.

**Tools, Cement, Sidewalk
and Curb—**
Kramer Bros. Foundry Co., Dayton, O.
Marshalltown Trowel Co., Marshalltown,
Ia.

Tools, Coal Miners'—
Hubbard & Co., Pittsburgh, Pa.

Tools, Compressed Air—
(See Compressed Air Tools.)

Tools, Coopers'—
Fred J. Meyers Mfg. Co., Hamilton, O.

Sandusky Tool Co., Sandusky, O.
L. & I. J. White Co., Buffalo, N. Y.

Tools, Cutting Off—
(See Cutting-Off Tools.)

Tools, Diamond Pointed—
American Emery Wheel Works, Provi-
dence, R. I.

Bridgeport Safety Emery Wheel Co.,
Bridgeport, Ct.

Chicago Wheel & Mfg. Co., 39-45 W.
Randolph St., Chicago, Ill.

Est. of John Dickinson, 61 Nassau St.,
New York.

Thos. L. Dickinson, 45 Vesey St., N. Y.
Steel Set Diamond Co., 36 Gold St., N. Y.

Vitrified Wheel Co., Westfield, Mass.

Tools, Dowel, Pin, &c.—
Chandler & Farquhar Co., Boston, Mass.
M. Lanz & Sons, Pittsburgh, Pa.

Tools, Engineers' Packing—
Vaughan & Bushnell Mfg. Co., Chicago.

Tools, Engravers'—
Keuffel & Esser Co., 127 Fulton St., N. Y.

Tools, Farriers'—
Heller Bros. Co., Newark, N. J.

**Tools, Filers' (Cleaners,
Handles, Holders, &c.)—**
Nicholson File Co., Providence, R. I.

Tools, Floral—
American Fork & Hoe Co., Cleveland, O.

Tools, Glaziers'—
(See Knife Putty, Cutters Glass.)

Tools, Granite Workers'—
Trow & Holden, Barre, Vt.

Tools, Hollow Adjustable—
Standard Tool Co., Cleveland, O.

**Tools, Jewelers' and Tool
Makers'—**
Billings & Spencer Co., Hartford, Ct.
Hubley Mfg. Co., Lancaster, Pa.

Kilborn & Bishop Co., New Haven, Ct.
Nicholson File Co., Providence, R. I.
L. S. Starrett Co., Athol, Mass.

Tools, Knurling—

Billings & Spencer Co., Hartford, Ct.
Goodell-Pratt Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Ct.

Tools, Lathe—

Armstrong Bros. Tool Co., 617 Austin Ave., Chicago, Ill.
Hill-Standard Mfg. Co., Anderson, Ind.
Hobbs Mfg. Co., Worcester, Mass.
Massachusetts Tool Co., Greenfield, Mass.
Pinkerton Mfg. Co., 2631 N. 34th St., Philadelphia, Pa.
Western Tool & Mfg. Co., Springfield, O.

Tools, Lumber—

Peter Gerlach Co., Cleveland, O.
Soule Steam Feed Works, Meridian, Miss.
Tools, Miners' Capping—
Tower & Lyon Co., 95 Chambers St., New York.

Tools, Miniature—

Smith & Hemenway Co., 108-110 Duane St., New York.

Tools, Mining, Picks, Wedges, Scrapers, Bars, &c.—

Iwan Bros., Streator, Ill.
Solid Steel Tool & Forge Co., Tarentum, Pa.
Tools, Opticians'—
Est. of John Dickinson, 64 Nassau St., New York.

Tools, Paper Hangers'—

Smith & Hemenway Co., 108-110 Duane St., New York.
Webster & Perks Tool Co., Springfield, O.

Tools, Parting—

Dame, Stoddard & Co., Boston, Mass.
Truck Mfg. Co., Brockton, Mass.

Tools, Paving Cutters'—

Trow & Holden, Barre, Vt.

Tools, Pearl Cutting—

Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.

Tools, Planer and Shaper—

Armstrong Bros. Tool Co., 617-621 Austin Ave., Chicago, Ill.
Hill-Standard Mfg. Co., Anderson, Ind.
Western Tool & Mfg. Co., Springfield, O.

Tools, Pneumatic—

(See Compressed Air Tools.)

Tools, Railroad Track—

Hubbard & Co., Pittsburgh, Pa.

Tools, Reloading, Cartridge

Ideal Mfg. Co., New Haven, Ct.
J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

Tools, Roofers' and Pavers'—

F. H. Evans, Brooklyn, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Tools, Saw—

E. C. Atkins & Co., Indianapolis, Ind.
Henry Disston & Sons, Philadelphia, Pa.
Kilborn & Bishop Co., New Haven, Ct.

Tools, Saw Makers'—

E. C. Atkins & Co., Indianapolis, Ind.
Henry Disston & Sons, Philadelphia, Pa.
Kilborn & Bishop Co., New Haven, Ct.
National Saw Co., Newark, N. J.
Simonds Mfg. Co., Fitchburg, Mass.

Tools, Ship Carpenters'—

L. & J. White Co., Buffalo, N. Y.

Tools, Slaters'—

Belden Machine Co., New Haven, Ct.
Niagara Machine & Tool Works, Buffalo, N. Y.

Smith & Hemenway Co., 108-110 Duane St., New York.

Tools, Thread Cutting Lathes—

Armstrong Bros. Tool Co., 617-621 Austin Ave., Chicago, Ill.
Billings & Spencer Co., Hartford, Ct.
Hill Standard Mfg. Co., Anderson, Ind.
Pratt & Whitney Co., Hartford, Ct.
Western Tool & Mfg. Co., Springfield, O.
Wiley & Russell Mfg. Co., Greenfield, Mass.

Tools, Turpentine—

Mann Edge Tool Co., Lewistown, Pa.

Tools, Well—

(See Well Supplies and Tools.)

Tools, Wire Fence—

Kilborn & Bishop Co., New Haven, Ct.

Tools, Wood Engraving—

Dame, Stoddard & Co., Boston, Mass.

Tools, Wood Turners'—

Buck Bros., Millbury, Mass.

Toothpicks—

E. B. Estes & Sons, 45-47 John St., N. Y.

Tops, Chimney—

Berger Mfg. Co., Canton, O.
Iwan Bros., Streator, Ill.
Lawrence Bros., Sterling, Ill.
Osborn Mfg. Co., Cleveland, O.
Schreiber & Conchar Mfg. Co., Dubuque, Ia.

Tops, Malleable D-Handle—

Avery Stamping Co., Cleveland, O.
F. E. Kohler & Co., Canton, O.

Tops, Spinning—

(See Toy Tops.)

Torches, Gasoline and Oil—

Berger Mfg. Co., Canton, O.
Bridgeport Brass Co., 253 B'way, N. Y.
Daugler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.

Tools, Gem Mfg. Co., Pittsburgh, Pa.

Hollands Mfg. Co., Erie, Pa.
Johnson Mfg. Co., Urbana, O.
Arthur T. Rutter & Co., 256 Broadway, New York.

Schneider & Trenkamp Division, American

Stove Co., Cleveland, O.
Turner Brass Works, Franklin & Michigan Sts., Chicago, Ill.

Torsion Testing Machines—

(See Testing Machines, Torsion.)

Tote Boxes—

(See Boxes, Tote.)

Towers, Cooling—

(See Cooling Towers.)

Towers, Spraying—

Deming Co., Salem, O.

Towers, Tank—

W. E. Caldwell Co., Louisville, Ky.
Forest City Steel & Iron Co., Cleveland.
Kenwood Bridge Co., First National Bank Bldg., Chicago, Ill.

Mast, Foss & Co., Springfield, O.

Win. B. Scaife & Sons Co., Pittsburgh, Pa.
Struthers, Wells & Co., Warren, Pa.

Towers, Water—

Kenwood Bridge Co., First National Bank Bldg., Chicago, Ill.

Toy Banks—

(See Toy Savings Banks.)

Toy Barrows, Wheel—

A. C. Williams, Ravenna, O.

Toy Beds—

Arcade Mfg. Co., Freeport, Ill.

Toy Carts, Carriages and Wagons—

Columbia Grey Iron Co., Columbia, Pa.
Hubley Mfg. Co., Lancaster, Pa.

Toy Chisels—

New England Specialty Co., North Easton, Mass.

Toy Coffee Mills—

Arcade Mfg. Co., Freeport, Ill.
Hubley Mfg. Co., Lancaster, Pa.
A. C. Williams, Ravenna, O.

Toy Engines and Cars—

Columbia Grey Iron Co., Columbia, Pa.
Hubley Mfg. Co., Lancaster, Pa.

Toy Fire Apparatus—

Hubley Mfg. Co., Lancaster, Pa.

Toy Hammers—

Columbia Grey Iron Co., Columbia, Pa.
Wrightsville Hardware Co., Wrightsville, Pa.

Toy Hatchets—

Arcade Mfg. Co., Freeport, Ill.
Columbia Grey Iron Co., Columbia, Pa.
A. C. Williams, Ravenna, O.
Wrightsville Hardware Co., Wrightsville, Pa.

Toy Hods, Coal—

A. C. Williams, Ravenna, O.

Toy Lawn Mowers—

Arcade Mfg. Co., Freeport, Ill.

Toy Locomotives and Trains—

Hubley Mfg. Co., Lancaster, Pa.
A. C. Williams, Ravenna, O.

Toy Meat Choppers—

Rollman Mfg. Co., Mt. Joy, Pa.

Toy Pincers—

Wrightsville Hardware Co., Wrightsville, Pa.

Toy Pistols, Cap—

Fanner Mfg. Co., Cleveland, O.

Toy Plane Irons—

New England Specialty Co., North Easton, Mass.

Toy Pumps—

Arcade Mfg. Co., Freeport, Ill.

Toy Rakes—

Columbia Grey Iron Co., Columbia, Pa.

Toy Sad Irons—

Arcade Mfg. Co., Freeport, Ill.
Columbia Grey Iron Co., Columbia, Pa.
Pleuger & Henger Mfg. Co., St. Louis, Mo.
A. C. Williams, Ravenna, O.
Wrightsville Hardware Co., Wrightsville, Pa.

Toy Safes, Iron—

A. C. Williams, Ravenna, O.

Toy Savings Banks—

Arcade Mfg. Co., Freeport, Ill.
Columbia Grey Iron Co., Columbia, Pa.
Hubley Mfg. Co., Lancaster, Pa.
Reading Hardware Co., Reading, Pa.
A. C. Williams, Ravenna, O.

Toy Scales—

Arcade Mfg. Co., Freeport, Ill.

Toy Shovels and Spades—

Columbia Grey Iron Co., Columbia, Pa.
Pritchard-Strong Co., Rochester, N. Y.
Wrightsville Hardware Co., Wrightsville, Pa.

Toy Stoves—

Arcade Mfg. Co., Freeport, Ill.
Columbia Grey Iron Co., Columbia, Pa.
Fanner Mfg. Co., Cleveland, O.
A. C. Williams, Ravenna, O.

Toy Tools—

Arcade Mfg. Co., Freeport, Ill.

Columbia Grey Iron Co., Columbia, Pa.

A. C. Williams, Ravenna, O.
Wrightsville Hardware Co., Wrightsville, Pa.

Toy Tops—

E. B. Estes & Sons, 45-47 John St., N. Y.
Handy Things Co., Ludington, Mich.

Toy Trucks—

A. C. Williams, Ravenna, O.

Toy Tubs—

Richmond Cedar Works, Richmond, Va.

Toy Wagons—

Hill-Standard Mfg. Co., Anderson, Ind.

Toys, Iron and Steel—

Arcade Mfg. Co., Freeport, Ill.
Columbia Grey Iron Co., Columbia, Pa.
Hubley Mfg. Co., Lancaster, Pa.
Rollman Mfg. Co., Mt. Joy, Pa.
Susquehanna Casting Co., Wrightsville, Pa.

A. C. Williams, Ravenna, O.
Wrightsville Hardware Co., Wrightsville, Pa.

Trace Chains—

(See Chains, Trace.)

Trace Lap Loops—

(See Links, Repair and Lap.)

Traces, Rope—

Beecher Draught Spring Co., New Haven, Ct.

Tracing Wheels—

(See Wheels, Tracing.)

Track Bolts, Gauges—

(See Bolts, Gauges.)

Track, Door Hanger—

(See Rail, Door.)

Track, Industrial—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
C. W. Hunt Co., West New Brighton, New York.
Indianapolis Switch & Frog Co., Springfield, O.

Arthur Koppel, 66-68 Broad St., N. Y.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Northern Engineering Works, Detroit, Mich.

Ernst Wiener Co., 68 Broad St., N. Y.

Track, Overhead Carrying—

Allith Mfg. Co., 122-124 S. Green St., Chicago, Ill.

Atlas Car & Mfg. Co., Cleveland, O.

Brown Hoisting Machinery Co., Cleveland, O.

Browning Engineering Co., Cleveland, O.

Oase Mfg. Co., Columbus, O.

Frevert Machinery Co., 18 Dey St., N. Y.

Ed. Harrington, Son & Co., Inc., Philadelphia, Pa.

A. Leschen & Sons Rope Co., St. Louis.

Louden Machinery Co., Fairfield, Ia.

McCabe Hanger Mfg. Co., 425-427 W. 25th

St., New York.

F. E. Myers & Bro., Ashland, O.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Ney Mfg. Co., Canton, O.

Niles-Bement-Pond Co., 111 Broadway,

New York.

Northern Engineering Works, Detroit, Mich.

J. E. Porter Co., Ottawa, Ill.

Richards Mfg. Co., Aurora, Ill.

J. G. Speidel, Reading, Pa.

Whiting Foundry Equipment Co., Harvey,

Ill.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Track, Portable—

W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.

Arthur Koppel Co., 66-68 Broad St., N. Y.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Northern Engineering Works, Detroit, Mich.

Ernst Wiener Co., 68 Broad St., N. Y.

Trade Checks—

(See Checks, Trade.)

Trade Journal Advertising—

Francis I. Maule, 402 Sansom St., Philadelphia, Pa.

Trammels and Trammel Points—

Athol Machine Co., Athol, Mass.

Henry Disston & Sons, Philadelphia, Pa.

Keuffel & Esser Co., 127 Fulton St., N. Y.

Massachusetts Tool Co., Greenfield, Mass.

Stanley Rule & Level Co., New Britain, Ct.

L. S. Starrett Co., Athol, Mass.

Tower & Lyon Co., 95 Chambers St., New York.

Tramways, Wire Rope

Broderick & Bascom Rope Co., St. Louis.

Brown Hoisting Machinery Co., Cleveland, O.

A. Leschen & Sons Rope Co., St. Louis.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Trenton Iron Co., Trenton, N. J.

Whiting Foundry Equipment Co., Harvey, Ill.

Transfer Tables, Railroad—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Brown Hoisting Machinery Co., Cleveland, O.

Cleveland Crane & Car Co., Wickliffe, O.

Industrial Works, Bay City, Mich.

Interstate Engineering Co., Bedford, Ct.

Northern Engineering Works, Detroit, Mich.

Wm. Sellers & Co., Inc., 16th and Hamilton Sts., Philadelphia, Pa.

Transformers, Electric—

Crocker-Wheeler Co., Ampere, N. J.

General Electric Co., Schenectady, N. Y.

National Electric Co., Milwaukee, Wis.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Transits—

Keuffel & Esser Co., 127 Fulton St., N. Y.

L. S. Starrett Co., Athol, Mass.

Transmission Machinery, Electric Power—

Browning Engineering Co., Cleveland, O.

Case Mfg. Co., Columbus, O.

General Electric Co., Schenectady, N. Y.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Transmission, Rope—

(See Rope Transmission.)

Transom Catches, Centers, Lifters—

(See Catches, Centers, Lifters.)

Trap Door Hinges—

(See Hinges, Trap Door.)

Trap Wrenches—

(See Wrenches, Trap.)

Traps, Crab—

Kilbourne Mfg. Co., Troy, N. Y.

Traps, Fly—

Parker Wire Goods Co., Worcester, Mass.

Republic Metalware Co., Buffalo, N. Y.

Wire Goods Co., Worcester, Mass.

Traps, Game—

Oneida Community, Kenwood, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Traps, Mole—

Enterprise Mfg. Co., Philadelphia, Pa.

Traps, Rat and Mouse—

Buffalo Wire Works Co., Buffalo, N. Y.

Burditt & Williams Co., Boston, Mass.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Estey Wire Works Co., 59 Fulton St., New York.

Edward S. Hotchkiss, Bridgeport, Ct.

Kilbourne Mfg. Co., Troy, N. Y.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Oneida Community, Kenwood, N. Y.

Parker Wire Goods Co., Worcester, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Smith & Egge Mfg. Co., Bridgeport, Ct.

Wire Goods Co., Worcester, Mass.

Traps, Sewer—

Barnes Mfg. Co., Mansfield, O.

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Goulds Mfg. Co., Seneca Falls, N. Y.

Traps, Steam—

American Blower Co., Detroit, Mich.

Boston Blower Co., Hyde Park, Mass.

Buffalo Forge Co., Buffalo, N. Y.

Julian D'Este Co., Boston, Mass.

Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., N. Y.

Greenaway Co., Detroit, Mich.

Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.

Jenkins Bros., 71 John St., New York.

John T. Lindstrom, Allentown, Pa.

Mason Regulator Co., Boston, Mass.

E. J. Ryan, Danville, Ill.

R. F. Sturtevant Co., Boston, Mass.

Walworth Mfg. Co., Boston, Mass.

Traps, Stench—

Pfeuger & Henger Mfg. Co., St. Louis.

Trap Wrenches—

(See Wrenches, Trap.)

Travelers, Boom and Deck—

W. & J. Tiebout, 118 Chambers St., N. Y.

Tray Fittings, Trunk—

J. H. Sessions & Son, Bristol, Ct.

Trays and Scrappers, Crumb—

New York Stamping Co., Brooklyn, N. Y.

Trays and Stands, Butlers'—

Udell Works, Indianapolis, Ind.

Trays, Card, Children's, Crumb, Spoon, &c., Silver Plated—

International Silver Co., 9-13 Maiden Lane, New York.

Trays, Casting—

Byram & Co., Detroit, Mich.

Trays, Counter—

E. B. Estes & Sons, 45-47 John St., N. Y.

Trays, Electric Lamp—

W. J. Clark Co., Salem, O.

Trays, Metal—

New York Stamping Co., Brooklyn, N. Y.

Republic Metalware Co., Buffalo, N. Y.

Riverside Metal Co., Riverside, N. J.

Sturges & Burn Mfg. Co., Chicago, Ill.

Trays, Pen—
E. B. Estes & Sons, 45-47 John St., N. Y.

Trays, Soap, Rubber—
Springfield Tire & Rubber Co., Springfield, O.

Trays, Wire, Paper—
Wire Goods Co., Worcester, Mass.

Treads, Stair and Step, Rubber—
New York Belting & Packing Co., 91-93 Chambers St., New York.

Treads, Stair, Iron—
Kramer Bros. Foundry Co., Dayton, O.

Tree Guards, Labels—
(See Guards, Labels.)

Trees, Hall—
Udell Works, Indianapolis, Ind.

Trellises, Wire—
Anchor Post Iron Works, 41 Park Row, New York.

Buffalo Wire Works Co., Buffalo, N. Y.
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
Estey Wire Works Co., 59 Fulton St., New York.
Forest City Steel & Iron Co., Cleveland, O.
Howard & Morse, 45 Fulton St., N. Y.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Ohio Structural Iron Co., Mandusky, O.
W. S. Tyler Co., Cleveland, O.

Trestles, Painters'—
Udell Works, Indianapolis, Ind.

Triangles, Steel—
Brown & Sharpe Mfg. Co., Providence, R. I.

Henry Diston & Sons, Philadelphia, Pa.
Kenfeld & Esser Co., 127 Fulton St., N. Y.

Triers, Butter and Cheese—
American Cutlery Co., Chicago, Ill.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Triers, Ham—
Vaughan & Bushnell Mfg. Co., Chicago.

Trimmers, Bolt Head—
E. W. Bliss Co., Brooklyn, N. Y.

National Machinery Co., Tiffin, O.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Trimmers, Brush—
Coldwell Lawn Mower Co., Newburgh, N. Y.

Trimmers, Lamp—
Acme Shear Co., Bridgeport, Ct.

Bridgeport Brass Co., 233 B'way, N. Y.
H. B. Ives Co., New Haven, Ct.

Trimmers, Lumber—
Lane Mfg. Co., Montpelier, Vt.

Wickes Bros. Saginaw, Mich.

Trimmers, Photograph—
S. G. Monce, Unionville, Ct.

Trimmers, Spoke—
Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.

C. E. Jennings & Co., 42 Murray St., New York.
Millers Falls Co., 23 Warren St., N. Y.

Trimmers' Tacks—
(See Tacks, Trimmers.)

Trimmers, Wall Paper—
Webster & Perks Tool Co., Springfield, O.

Trimmers, Wood—
Fox Machine Co., Grand Rapids, Mich.
Lane Mfg. Co., Montpelier, Vt.
Oliver Machinery Co., Grand Rapids, Mich.
Washburn Shops, Worcester, Mass.
Wickes Bros., Saginaw, Mich.

Trimming, Furniture—
American Ring Co., Waterbury, Ct.

Trimming, and Mounts, Metal Bedsteads—
American Ring Co., Waterbury, Ct.

Trimming, Bag, Box, Case, &c.—
R. C. Jenkinson & Co., Newark, N. J.

Trimming, Boiler and Engine—
Wm. Powell Co., Cincinnati, O.

Trimming, Car, Brass—
H. B. Ives Co., New Haven, Ct.

Henger & Henger Mfg. Co., St. Louis.
(See also Locks and Trimmings, Car.)

Trimming, Curtain Pole—
American Ring Co., Waterbury, Ct.

Trimming, Halter—
Covert Mfg. Co., Troy, N. Y.

Trimming, Hame—
Rock River Mfg. Co., Dixon, Ill.

Trimming, Overall—
Spencer Wire Co., Worcester, Mass.

Trimming, Razor Strap—
R. C. Jenkinson & Co., Newark, N. J.

Trimming, Shaft Leather—
McKinnon Dash Co., Buffalo, N. Y.

Trimming, Stove—
American Tube & Stamping Co., Bridgeport, Ct.

Fanner Mfg. Co., Cleveland, O.
H. A. Matthews Mfg. Co., Seymour, Ct.

Trimming, Strap—
Covert Mfg. Co., Troy, N. Y.

Trimming, Tinner's—
(See Tinner's Trimmings.)

Trimming, Trunk—
R. C. Jenkinson & Co., Newark, N. J.

J. H. Sessions & Son, Bristol, Ct.

Trolley Carriages, Hoists, Insulators, Poles—
(See Carriages, Hoists, Insulators, Poles.)

Trolley Materials, Electrical—
Billings & Spencer Co., Hartford, Ct.

General Pneumatic Tool Co., Montour Falls, N. Y.
Keystone Drop Forge Works, Chester, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Ohio Brass Co., Mansfield, O.

Trolley Wheel Machines—
C. E. Sutton Co., Toledo, O.

Trolley Wire—
(See Wires, Electric.)

Trolleys—
Frevert Machinery Co., 18 Dey St., N. Y.

General Pneumatic Tool Co., Montour Falls, N. Y.
Northern Engineering Works, Detroit, Mich.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Trolleys, Electric Conveying—
Browning Engineering Co., Cleveland, O.

Cleveland Crane & Car Co., Wickliffe, O.
Northern Engineering Works, Detroit, Mich.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Trolley, I-Beam—
Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Browning Engineering Co., Cleveland, O.
Brown Hoisting Machinery Co., Cleveland, O.
Chisholm & Moore Mfg. Co., Cleveland, O.

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Boston & Lockport Block Co., Boston.
 Fairbanks Co., 416 Broome St., N. Y.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
 Northern Engineering Works, Detroit, Mich.

Warsaw Elevator Co., Warsaw, N. Y.

Trucks, Bullion—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.

Trucks, Butchers—
 Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Car—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.

Trucks, Coal—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Geo. P. Clark Co., Windsor Locks, Ct.

Fairbanks Co., 416 Broome St., New York.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Northern Engineering Works, Detroit, Mich.

Trucks, Crate—
 Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Dry Goods—
 Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Dye House—
 Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Dry Kiln—
 American Blower Co., Detroit, Mich.

Atlas Car & Mfg. Co., Cleveland, O.

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.

B. F. Sturtevant Co., Boston, Mass.

Warsaw Elevator Co., Warsaw, N. Y.

Wickes Bros., Saginaw, Mich.

Wright Wire Co., Worcester, Mass.

Trucks, Factory and Mill—
 Chase Foundry & Mfg. Co., Columbus, O.

City Forge & Iron Works, Dayton, O.

Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Flour Bin—
 St. Louis Hardware Mfg. Co., St. Louis.

Trucks, Foundry—
 Atlas Car & Mfg. Co., Cleveland, O.

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Boston & Lockport Block Co., Boston.

Browning Engineering Co., Cleveland, O.

Byram & Co., Detroit, Mich.

Chase Foundry & Mfg. Co., Columbus, O.

Fairbanks Co., 416 Broome St., N. Y.

Jones & Laughlin Steel Co., Pittsburgh.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Arthur Koppel, 66 Broad St., New York.

Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.

Pawling & Harnischfeger, Milwaukee, Wis.

J. W. Paxson Co., Philadelphia, Pa.

Sheffield Car Co., Three Rivers, Mich.

J. D. Smith Foundry Supply Co., Cleveland, O.

Warsaw Elevator Co., Warsaw, N. Y.

R. W. Whitehurst & Co., Norfolk, Va.

Whiting Foundry Equipment Co., Harvey, Ill.

Trucks, Garbage—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Trucks, Hose, Street Flushing—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Trucks, Hospital—
 Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Laundry—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Geo. P. Clark Co., Windsor Locks, Ct.

Fairbanks Co., 416 Broome St., New York.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Trucks, Log—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Lane Mfg. Co., Montpelier, Vt.

Trucks, Mold Drying and Annealing—
 Chase Foundry & Mfg. Co., Columbus, O.

Trucks, Office or Bank—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Boston & Lockport Block Co., Boston.

Geo. P. Clark Co., Windsor Locks, Ct.

Fairbanks Co., 416 Broome St., New York.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Trucks, Paper Roll—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Boston & Lockport Block Co., Boston.

Geo. P. Clark Co., Windsor Locks, Ct.

Fairbanks Co., 416 Broome St., New York.

Northern Engineering Works, Detroit, Mich.

Trucks, Printers' Form—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Geo. P. Clark Co., Windsor Locks, Ct.

Fairbanks Co., 416 Broome St., N. Y.

Trucks, Store, Warehouse, &c.—
 Atlas Car & Mfg. Co., Cleveland, O.

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Boston & Lockport Block Co., Boston.

Chase Foundry & Mfg. Co., Columbus, O.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

City Forge & Iron Works, Dayton, O.

Geo. P. Clark Co., Windsor Locks, Ct.

F. H. Evans, Brooklyn, N. Y.

Fairbanks Co., 416 Broome St., N. Y.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

McKinney Mfg. Co., Allegheny, Pa.

Sheffield Car Co., Three Rivers, Mich.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Warsaw Elevator Co., Warsaw, N. Y.

R. W. Whitehurst Co., Norfolk, Va.

Trucks, Stove—
 Arcade Mfg. Co., Freeport, Ill.

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Barnes Mfg. Co., Mansfield, O.

Boston & Lockport Block Co., Boston.

Chase Foundry & Mfg. Co., Columbus, O.

Fairbanks Co., 416 Broome St., N. Y.

S. M. Howes Co., Boston, Mass.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Kramer Bros. Foundry Co., Dayton, O.

C. S. Mersick & Co., New Haven, Ct.

Warsaw Elevator Co., Warsaw, N. Y.

- Cleveland Crane & Car Co., Wickliffe, O.
 Frevert Machinery Co., 18 Dey St., N. Y.
 General Pneumatic Tool Co., Montour Falls, N. Y.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
 Northern Engineering Works, Detroit, Mich.
 Pawling & Harnischfeger, Milwaukee, Wis.
 Quincy, Manchester Sargent Co., Old Colony Bldg., Chicago, Ill.
 D. Round & Son, Cleveland, O.
 Yale & Towne Mfg. Co., 9-15 Murray St., New York.
Trolleys, Plain Rail—
 Northern Engineering Works, Detroit, Mich.
 D. Round & Son, Cleveland, O.
 Yale & Towne Mfg. Co., 9-15 Murray St., New York.
Trolleys, Pneumatic—
 General Pneumatic Tool Co., Montour Falls, N. Y.
 Northern Engineering Works, Detroit, Mich.
Trolleys, Roller Bearing—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Northern Engineering Works, Detroit, Mich.
Trolleys, Street Railway—
 Atlas Car & Mfg. Co., Cleveland, O.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 General Electric Co., Schenectady, N. Y.
 H. D. Nuttall Co., Pittsburgh, Pa.
**Troughs, Cast Iron Water-
 ing—**
 Poughkeepsie Foundry & Machine Co., Poughkeepsie, N. Y.
Troughs, Cattle—
 Avery Stamping Co., Cleveland, O.
 A. Buch's Sons Co., Elizabethtown, Pa.
 West Side Foundry Co., Troy, N. Y.
Troughs, Conveyor—
 H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
 Hendrick Mfg. Co., Carbondale, Pa.
 Interstate Engineering Co., Bedford, Ct.
 Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.
Troughs, Pig—
 A. Buch's Sons Co., Elizabethtown, Pa.
Troughs, Poultry—
 A. Buch's Sons Co., Elizabethtown, Pa.
Troughs, Pump—
 A. Buch's Sons Co., Elizabethtown, Pa.
**Trouser Guards, Hangers,
 Stretchers—**
 (See Guards, Hangers, Stretchers.)
**Trowels, Brick, Plastering,
 &c.—**
 E. C. Atkins & Co., Indianapolis, Ind.
 Geo. H. Bishop & Co., Cincinnati, O.
 Henry Disston & Sons, Philadelphia, Pa.
 Griffin Mfg. Co., Erie, Pa.
 Marshalltown Trowel Co., Marshalltown, Ia.
 National Saw Co., Newark, N. J.
 Wiebusch & Hilger, 9 Murray St., N. Y.
Trowels, Coke—
 Henry Disston & Sons, Philadelphia, Pa.
Trowels, Garden—
 Avery Stamping Co., Cleveland, O.
 Henry Disston & Sons, Philadelphia, Pa.
 F. E. Kohler & Co., Canton, O.
- New York Stamping Co., Brooklyn, N. Y.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Potter Mfg. Co., Geneva, O.
 Pritchard-Strong Co., Rochester, N. Y.
Truck Casters, Wheels—
 (See Casters, Wheels.)
**Truck Wheels, Rubber Cov-
 ered—**
 (See Wheels, Rubber Tired.)
Trucks, Bag—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Boston & Lockport Block Co., Boston.
 A. Buch's Sons Co., Elizabethtown, Pa.
 Case Mfg. Co., Columbus, O.
 Chase Foundry & Mfg. Co., Columbus, O.
 Fairbanks Co., 416 Broome St., New York.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
 Syracuse Chilled Plow Co., Syracuse, N. Y.
 Warsaw Elevator Co., Warsaw, N. Y.
**Trucks, Baggage and Ex-
 press—**
 Chase Foundry & Mfg. Co., Columbus, O.
 Geo. P. Clark Co., Windsor Locks, Ct.
Trucks, Bakers—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Fairbanks Co., 416 Broome St., New York.
**Trucks, Bar Iron, Pipe,
 Rail, &c.—**
 Chase Foundry & Mfg. Co., Columbus, O.
Trucks, Barrel—
 Atlas Car & Mfg. Co., Cleveland, O.
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Bateman Mfg. Co., Grenloch, N. J.
 Boston & Lockport Block Co., Boston.
 Case Mfg. Co., Columbus, O.
 Chase Foundry & Mfg. Co., Columbus, O.
 Chicago Scale Co., 232-236 Jackson Boul-
 vard, Chicago, Ill.
 Geo. P. Clark Co., Windsor Locks, Ct.
 Enterprise Mfg. Co., Philadelphia, Pa.
 F. H. Evans, Brooklyn, N. Y.
 Fairbanks Co., 416 Broome St., New York.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
 McKinney Mfg. Co., Allegheny, Pa.
 Syracuse Chilled Plow Co., Syracuse, N. Y.
 Warsaw Elevator Co., Warsaw, N. Y.
 R. W. Whitehurst & Co., Norfolk, Va.
Trucks, Basket—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Fairbanks Co., 416 Broome St., N. Y.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
 Warsaw Elevator Co., Warsaw, N. Y.
 R. W. Whitehurst & Co., Norfolk, Va.
**Trucks, Beam or Telegraph
 Pole—**
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Fairbanks Co., 416 Broome St., N. Y.
Trucks, Bottlers—
 Chase Foundry & Mfg. Co., Columbus, O.
 Geo. P. Clark Co., Windsor Locks, Ct.
Trucks, Box—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Chase Foundry & Mfg. Co., Columbus, O.
 City Forge & Iron Works, Dayton, O.
 Geo. P. Clark Co., Windsor Locks, Ct.
Trucks, Brick—
 Atlas Car & Mfg. Co., Cleveland, O.

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Boston & Lockport Block Co., Boston.
 Fairbanks Co., 416 Broome St., N. Y.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
 Northern Engineering Works, Detroit, Mich.

Warsaw Elevator Co., Warsaw, N. Y.

Trucks, Bullion—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.

Trucks, Butchers—

Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Car—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.

Trucks, Coal—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Geo. P. Clark Co., Windsor Locks, Ct.

Fairbanks Co., 416 Broome St., New York.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Northern Engineering Works, Detroit, Mich.

Trucks, Crate—

Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Dry Goods—

Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Dye House—

Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Dry Kiln—

American Blower Co., Detroit, Mich.

Atlas Car & Mfg. Co., Cleveland, O.

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.

B. F. Sturtevant Co., Boston, Mass.

Warsaw Elevator Co., Warsaw, N. Y.

Wickes Bros., Saginaw, Mich.

Wright Wire Co., Worcester, Mass.

Trucks, Factory and Mill—

Chase Foundry & Mfg. Co., Columbus, O.

City Forge & Iron Works, Dayton, O.

Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Flour Bin—

St. Louis Hardware Mfg. Co., St. Louis.

Trucks, Foundry—

Atlas Car & Mfg. Co., Cleveland, O.

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Boston & Lockport Block Co., Boston.

Browning Engineering Co., Cleveland, O.

Byram & Co., Detroit, Mich.

Chase Foundry & Mfg. Co., Columbus, O.

Fairbanks Co., 416 Broome St., N. Y.

Jones & Laughlin Steel Co., Pittsburgh.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Arthur Koppel, 66 Broad St., New York.

Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.

Pawling & Harnischfeger, Milwaukee, Wis.

J. W. Paxson Co., Philadelphia, Pa.

Sheffield Car Co., Three Rivers, Mich.

J. D. Smith Foundry Supply Co., Cleveland, O.

Warsaw Elevator Co., Warsaw, N. Y.

R. W. Whitehurst & Co., Norfolk, Va.

Whiting Foundry Equipment Co., Harvey, Ill.

Trucks, Garbage—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Trucks, Hose, Street Flushing—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Trucks, Hospital—

Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Laundry—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Geo. P. Clark Co., Windsor Locks, Ct.

Fairbanks Co., 416 Broome St., New York.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Trucks, Log—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Lane Mfg. Co., Montpelier, Vt.

Trucks, Mold Drying and Annealing—

Chase Foundry & Mfg. Co., Columbus, O.

Trucks, Office or Bank—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Boston & Lockport Block Co., Boston.

Geo. P. Clark Co., Windsor Locks, Ct.

Fairbanks Co., 416 Broome St., New York.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Trucks, Paper Roll—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Boston & Lockport Block Co., Boston.

Geo. P. Clark Co., Windsor Locks, Ct.

Fairbanks Co., 416 Broome St., New York.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Trucks, Printers' Form—

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Geo. P. Clark Co., Windsor Locks, Ct.

Fairbanks Co., 416 Broome St., N. Y.

Trucks, Store, Warehouse, &c.—

Atlas Car & Mfg. Co., Cleveland, O.

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Boston & Lockport Block Co., Boston.

Chase Foundry & Mfg. Co., Columbus, O.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

City Forge & Iron Works, Dayton, O.

Geo. P. Clark Co., Windsor Locks, Ct.

F. H. Evans, Brooklyn, N. Y.

Fairbanks Co., 416 Broome St., N. Y.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

McKinney Mfg. Co., Allegheny, Pa.

Sheffield Car Co., Three Rivers, Mich.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Warsaw Elevator Co., Warsaw, N. Y.

R. W. Whitehurst Co., Norfolk, Va.

Trucks, Stove—

Arcade Mfg. Co., Freeport, Ill.

Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Barnes Mfg. Co., Mansfield, O.

Boston & Lockport Block Co., Boston.

Chase Foundry & Mfg. Co., Columbus, O.

Fairbanks Co., 416 Broome St., N. Y.

S. M. Howes Co., Boston.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Kramer Bros. Foundry Co., Dayton, O.

C. S. Mersick & Co., New Haven, Ct.

Warsaw Elevator Co., Warsaw, N. Y.

R. W. Whitehurst Co., Norfolk, Va.
Trucks, Street Car—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Fairbanks Co., 416 Broome St., New York.
 Sheffield Car Co., Three Rivers, Mich.

Trucks, Tannery—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Geo. P. Clark Co., Windsor Locks, Ct.
 Fairbanks Co., 416 Broome St., New York.

Trucks, Timber—
 E. C. Atkins & Co., Indianapolis, Ind.
 Atlas Car & Mfg. Co., Cleveland, O.
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.

Boston & Lockport Block Co., Boston.
 Buffalo Forge Co., Buffalo, N. Y.
 Chase Foundry & Mfg. Co., Columbus, O.
 City Forge & Iron Works, Dayton, O.
 Geo. P. Clark Co., Windsor Locks, Ct.
 Fairbanks Co., 416 Broome St., N. Y.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
 Lane-Mfg. Co., Montpelier, Vt.
 B. F. Sturtevant Co., Boston, Mass.
 Warsaw Elevator Co., Warsaw, N. Y.

Trucks, Tin Plate—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Boston & Lockport Block Co., Boston.
 Geo. P. Clark Co., Windsor Locks, Ct.
 Fairbanks Co., 416 Broome St., New York.

Trucks, Tin—
 Geo. P. Clark Co., Windsor Locks, Ct.
 Fairbanks Co., 416 Broome St., New York.

Trucks, Window Glass—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Fairbanks Co., 416 Broome St., New York.

Trucks, Wire—
 Bancroft & Co., Fifth & Chestnut Sts., Philadelphia, Pa.
 Boston & Lockport Block Co., Boston.
 Fairbanks Co., 416 Broome St., New York.
 Morgan Construction Co., Worcester, Mass.
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Trumps, Firemen's, Silver Plated—
 International Silver Co., 9-13 Maiden Lane, New York.

Trunk Carriers, Clamps, &c.
 (See Carriers, Clamps, &c.)

Trunk Hardware—
 John R. Keim Mills, Buffalo, N. Y.
 J. H. Sessions & Son, Bristol, Ct.
 N. & G. Taylor Co., Chestnut & Third Sts., Philadelphia, Pa.

Trunk Makers' Tools—
 George A. Ohl Co., Newark, N. J.
 Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Truss Rods—
 (See Bolts, Bridge and Roof.)

Trusses, Steel Building and Bridge—
 Carnegie Steel Co., Pittsburgh, Pa.

Tryers, Butter and Cheese—
 Dame, Stoddard & Co., Boston, Mass.

Try Squares—
 (See Squares, Try.)

Turn Ears, Handles, Hoops—
 (See Ears, Handles, Hoops.)

Turn Machinery and Tools—
 Peter Gerlach Co., Cleveland, O.

Tube Cutters, Expanders, &c.
 (See Cutters, Expanders, &c.)

Tube Hole Punches—
 (See Punches, Hand and Tube Hole.)

Tube Works Equipment—
 United Engineering & Foundry Co., Pittsburgh, Pa.

Tubes, Boiler—
 Ellwood Irvin Tube Works, Oak Lane Sta., Philadelphia, Pa.

Mark Mfg. Co., Chicago, Ill.
 National Tube Co., Pittsburgh, Pa.
 Shelby Steel Tube Co., Pittsburgh, Pa.

MERCHANTS.
 Bourne-Fuller Co., Cleveland, O.
 I. C. Hirsch Iron, Steel & Rail Co., Cincinnati, O.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.
 E. Keeler Co., Williamsport, Pa.
 McClellan & Orr, Monadnock Block, Chicago, Ill.

McDowell & Co., Allegheny, Pa.
 Pierson & Co., 29 Broadway, New York.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Tubes, Boiler, Wrought Steel—
 Pierson & Co., 29 Broadway, N. Y.

Tubes, Brass and Copper Condensers—
 Bridgeport Brass Co., 253 B'way, N. Y.
 U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Arthur T. Rutter & Co., 256 Broadway, New York.

Tubes, Combination, Plati-num—
 J. Bishop & Co., Malvern, Pa.

Tubes, Flexible Steel—
 T. R. Almond Mfg. Co., Brooklyn, N. Y.

Tubes, Glass—
 Ashton Valve Co., Boston, Mass.

Tubes, Gold Plated—
 Ellwood Irvin Tube Works, Oak Lane Sta., Philadelphia, Pa.

Tubes, Grain Drill, Wire—
 Cleveland Wire Spring Co., Cleveland, O.

Tubes, Hydraulic Seamless Steel—
 Ellwood Irvin Tube Works, Oak Lane Sta., Philadelphia, Pa.

John S. Leng's Son & Co., 33 Murray St., New York.
 National Tube Co., Pittsburgh, Pa.
 Shelby Steel Tube Co., Pittsburgh, Pa.

Tubes, Platinum Plated—
 Ellwood Irvin Tube Works, Oak Lane Sta., Philadelphia, Pa.

Tubes, Punch—
 Evelet Tool Co., Boston, Mass.
 Ellwood Irvin Tube Works, Oak Lane Sta., Philadelphia, Pa.

Tubes, Speaking—
 Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Berger Mfg. Co., Canton, O.
 W. R. Ostrander & Co., 22 Dey St., N. Y.

Tubes, Wringer Roll—
 New York Belting & Packing Co., 91-93 Chambers St., New York.

Tubing, Aluminum—

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
Pittsburgh Reduction Co., Pittsburgh, Pa.
Arthur T. Rutter & Co., 256 Broadway, New York.

Tubing, Atomizer—

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

Tubing, Automobile—

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
Shelby Steel Tube Co., Pittsburgh, Pa.
Standard Welding Co., Cleveland, O.

Tubing, Bicycle—

American Tube & Stamping Co., Bridgeport, Ct.
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
John S. Leng's Son & Co., 33 Murray St., New York.
National Tube Co., Pittsburgh, Pa.
Shelby Steel Tube Co., Pittsburgh, Pa.

Tubing, Brass and Copper—

American Tube & Stamping Co., Bridgeport, Ct.
Bridgeport Brass Co., 253 B'way, N. Y.
French Mfg. Co., Waterbury, Ct.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
McKenna Bros. Brass Co., Pittsburgh, Pa.
Arthur T. Rutter & Co., 256 Broadway, New York.
Scovill Mfg. Co., Waterbury, Ct.
Waterbury Brass Co., Waterbury, Ct.

Tubing, Bronze—

Bridgeport Brass Co., 253 B'way, N. Y.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
Arthur T. Rutter & Co., 256 Broadway, N.Y.
Scovill Mfg. Co., Waterbury, Ct.
Waterbury Brass Co., Waterbury, Ct.

Tubing, Cold Drawn, Square—

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
Arthur T. Rutter & Co., 256 Broadway, New York.
Shelby Steel Tube Co., Pittsburgh, Pa.

Tubing, German Silver—

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
Arthur T. Rutter & Co., 256 Broadway, New York.
Scovill Mfg. Co., Waterbury, Ct.

Tubing, Gold—

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

Tubing, High Carbon Steel—

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

Tubing, Hypodermic Needle—

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

Tubing, Nickel—

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

Tubing, Platinum—

J. Bishop & Co., Malvern, Pa.
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

Tubing, Pump, Steel—

Cleveland Galvanizing Works, Cleveland.
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
La Belle Iron Works, Steubenville, O.
National Tube Co., Pittsburgh, Pa.

Tubing, Pump, Wood—

Union Mfg. Co., New Britain, Ct.

Tubing, Rubber—

H. O. Canfield Co., Bridgeport, Ct.
New York Belting & Packing Co., 91-93 Chambers St., New York.

Tubing, Seamless Bronze—

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
Arthur T. Rutter & Co., 256 Broadway, New York.

Tubing, Seamless Lead and Tin—

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

Tubing, Seamless, Plants for—

Hugh L. Thompson, Waterbury, Ct.

Tubing, Seamless Steel—

American Tube & Stamping Co., Bridgeport, Ct.
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
John S. Leng's Son & Co., 33 Murray St., New York.
National Tube Co., Pittsburgh, Pa.
Arthur T. Rutter & Co., 256 Broadway, New York.
Shelby Steel Tube Co., Pittsburgh, Pa.
Standard Welding Co., Cleveland, O.

Tubing, Seamless, Tool Steel—

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
Arthur T. Rutter & Co., 256 Broadway, New York.

Tubing, Silver—

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

Tubing, Tool Steel, for Drills—

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

Tubing, Well—

Cleveland Galvanizing Works, Cleveland.
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
Mark Mfg. Co., Chicago, Ill.
National Tube Co., Pittsburgh, Pa.

Tubing, Zinc—

Bridgeport Brass Co., 253 B'way, N. Y.
Scovill Mfg. Co., Waterbury, Ct.
Waterbury Brass Co., Waterbury, Ct.

Tubs, Bath—

(See Bathtubs.)

Tubs, Crockery, Laundry—

Humphreys Mfg. Co., Mansfield, O.

Tubs, Factory—

W. J. Clark Co., Salem, O.

Tubs, Galvanized—

Republic Metalware Co., Buffalo, N. Y.

Tubs, Hoisting—

W. J. Clark Co., Salem, O.
F. H. Evans, Brooklyn, N. Y.
Fairbanks Co., 416 Broome St., New York.
C. W. Hunt Co., West New Brighton, N.Y.
Jeffrey Mfg. Co., Columbus, O.
Wellman-Seaver-Morgan Co., Cleveland.

- Tubs, Toy—**
(See Toy Tubs.)
- Tubs, Wash—**
Republic Metalware Co., Buffalo, N. Y.
Richmond Cedar Works, Richmond, Va.
Tubular or Split Riveters—
(See Riveters for Tubular, &c.)
- Tumbling Mills—**
(See Barrels, Tumbling.)
- Tungsten—**
Beaver Metallurgical Co., Beaver Falls, Pa.
Geo. G. Blackwell, Sons & Co., Liverpool, Eng.
Roessler & Haasacher Chemical Co., 100 William St., New York.
- Tungsten Compounds—**
Beaver Metallurgical Co., Beaver Falls, Pa.
- Turbine Water Wheels—**
(See Water Wheels.)
- Turbines, Steam—**
De Laval Steam Turbine Co., Trenton, N. J.
General Electric Co., Schenectady, N. Y.
Hooven, & Wens, Reuschler Co., Hamilton, O.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
- Tureens, Silver Plated—**
International Silver Co., 9-13 Maiden Lane, New York.
- Turf Edgers—**
(See Edgers, Turf.)
- Turn Tables, Bridge and Railroad—**
American Bridge Co. of New York, 42 Broadway, N. Y.
Atlas Car & Mfg. Co., Cleveland, O.
Baltimore Bridge Co., Baltimore, Md.
Belmont Iron Works, Inc., Philadelphia.
Boston Bridge Works, Boston, Mass.
Brown Hoisting Machinery Co., Cleveland.
Browning Engineering Co., Cleveland, O.
Cleveland Crane & Car Co., Wickliffe, O.
Thos. Carlin's Sons Co., Allegheny, Pa.
Ingersate Engineering Co., Bedford, Ct.
Kibourne & Jacobs Mfg. Co., Columbus, O.
Arthur Koppel, 66-68 Broad St., New York.
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.
Northern Engineering Works, Detroit, Mich.
Passaic Steel Co., Paterson, N. J.
Wm. Sellers & Co. (Inc.), 16th and Hamilton Sts., Philadelphia, Pa.
Whiting Foundry Equipment Co., Harvey, Ill.
Ernst Wiener Co., 68 Broad St., N. Y.
- Turn Tables, Mine—**
W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.
Arthur Koppel, 66-68 Broad St., N. Y.
Northern Engineering Works, Detroit, Mich.
Wm. Sellers & Co. (Inc.), 16th and Hamilton Sts., Philadelphia, Pa.
- Turn Tables, Shop—**
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Browning Engineering Co., Cleveland, O.
Byram & Co., Inc., Detroit, Mich.
C. W. Hunt Co., West New Brighton, New York.
W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.
Arthur Koppel, 66-68 Broad St., N. Y.
- Northern Engineering Works, Detroit Mich.**
Pawling & Harmspfeffer, Milwaukee, Wis.
Wm. Sellers & Co. (Inc.), 16th and Hamilton Sts., Philadelphia, Pa.
J. D. Smith Foundry Supply Co., Cleveland, O.
B. F. Sturtevant Co., Boston, Mass.
Ernst Wiener Co., 68 Broad St., N. Y.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.
- Turnbuckle Tapping Machines—**
(See Tapping Machines, Turnbuckle.)
- Turnbuckles—**
American Bridge Co. of New York, 42 Broadway, New York.
American Iron & Steel Mfg. Co., Lebanon, Pa.
Berner Bros. Co., 231-237 Arch St., Philadelphia, Pa.
Buckeye Forging & Specialty Co., Sebring, O.
Cleveland City Forge & Iron Co., Cleveland, O.
Graham Nut Co., Pittsburgh, Pa.
Samuel Hall's Sons, 229-233 W. 10th St., New York.
W. H. Haskell Mfg. Co., Pawtucket, R. I.
M. Lanz & Sons, Pittsburgh, Pa.
A. Leschen & Sons Rope Co., St. Louis.
Merrill Bros., Brooklyn, N. Y.
A. S. Morris Co., Boston, Mass.
National Mfg. Co., Sterling, Ill.
Republic Iron & Steel Co., Chicago, Ill.
Rhode Island Tool Co., Providence, R. I.
St. Louis Screw Co., St. Louis, Mo.
Stirling Blower & Pipe Mfg. Co., Hartford, Ct.
Strieby & Foote Co., Newark, N. J.
Union Nut Co., Cleveland, O.
Williamsport Wire Rope Co., Williamsport, Pa.
- Turnbuckles, Brass and Galvanized—**
W. & J. Tiebout, 118 Chambers St., N. Y.
- Turners, Cake—**
Arcade Mfg. Co., Freeport, Ill.
Handy Things Co., Ludington, Mich.
Potter Mfg. Co., Geneva, O.
Pritchard-Strong Co., Rochester, N. Y.
Republic Metalware Co., Buffalo, N. Y.
Wagner Mfg. Co., Cedar Falls, Ia.
A. C. Williams, Ravenna, O.
- Turners, Fish—**
Potter Mfg. Co., Geneva, O.
- Turners, Paper Calendar Roll—**
Est. of John Dickinson, 64 Nassau St., New York.
- Turning and Boring Mills—**
(See Mills, Boring and Turning.)
- Turning and Felloe Webs—**
(See Webs, Turning, Felloe, &c.)
- Turning, Wood, to Order—**
E. B. Estes & Sons, 45-47 John St., N. Y.
Handy Things Co., Ludington, Mich.
Rock River Mfg. Co., Dixon, Ill.
Sandusky Tool Co., Sandusky, O.
Union Hardware Co., Torrington, Ct.
- Turnpins, Plumbers—**
(See Pins, Plumbers' Turn.)
- Turns, Bell—**
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Turns, Cupboard—
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
Shelby Spring Hinge Co., Shelby, O.
Taylor & Boggs Foundry Co., Cleveland, O.

Turpentine Tools—
(See Tools, Turpentine.)

Turret Drills, Lathes—
(See Drills, Lathes.)

Turret Head Tools—
T. R. Almond Mfg. Co., Brooklyn, N. Y.
Tuyere, Iron—
(See Irons, Tuyere.)

Tuyeres, Clay, for Bessemer Converters—
Harbison-Walker Refractories Co., Pittsburgh, Pa.

Twine, Binder—
American Mfg. Co., 85 Wall St., N. Y.
Broderick & Rascon Rope Co., St. Louis.
Plymouth Cordage Co., North Plymouth, Mass.

Waterbury Co., 69 South St., N. Y.

Twine Boxes, Holders—
(See Boxes, Holders.)

Twine, Coarse—
Estes Mills, Fall River, Mass.

Twine, Finished India—
American Mfg. Co., 85 Wall St., N. Y.

Twine, Flax, Hemp, Jute and Wool—
American Mfg. Co., 85 Wall St., N. Y.

New York Cordage Co., 83-85 Wall St., N. Y.

Twist Drill Grinding Machines—
(See Grinders, Drill.)

Twist Drills—
(See Drills, Twist.)

Type Metal—
Pittsburgh White Metal Co., Pittsburgh.

Type Setting Machines—
H. H. Brown & Co., New Haven, Ct.

Type, Typewriter—
New York Stencil Works, 100 Nassau St., New York.

Type Wheels—
New York Stencil Works, 100 Nassau St., New York.

Typewriters—
Fox Machine Co., Grand Rapids, Mich.

Umbrella Stands, &c.—
(See Stands.)

Underwriters' Wire—
(See Wires, Electrical.)

Uniform Buttons—
(See Buttons, Uniform.)

Union Scales—
(See Scales, Union.)

Unions, Forged Pipe—
J. H. Williams & Co., Brooklyn, N. Y.

Unions, Pipe—
E. M. Dart Mfg. Co., Providence, R. I.

H. Mueller Mfg. Co., Decatur, Ill.

Nolte Brass Co., Springfield, O.

Wm. Powell Co., Cincinnati, O.

Walworth Mfg. Co., Boston, Mass.

Universal Squares—
(See Squares, Combination.)

Unloaders, Railroad Ballast—
Lidgerwood Mfg. Co., 96 Liberty St., New York.

Upholsterers' and Saddlery Hammers—

(See Hammers, Saddlery and Upholsterers.)

Upholsterers' Regulators—
(See Regulators, Upholsterers.)

Upholstery and Curtain Fixtures—

(See Curtain and Upholstery Fixtures.)

Upright Pulleys—
(See Pulleys, Upright.)

Upsetters, Tire—
Buffalo Forge Co., Buffalo, N. Y.

Williams, White & Co., Moline, Ill.

Upsetting Machines—
National Machinery Co., Tiffin, O.

Williams, White & Co., Moline, Ill.

Urns—
(See Architectural Sheet Metal Work.)

Urns, Coffee and Hot Water, Electric—

General Electric Co., Schenectady, N. Y.

Vacuum Pumps—
(See Pumps, Compression and Vacuum.)

Valleys and Gutters, in Rolls—

Berger Mfg. Co., Canton, O.

Edwards Mfg. Co., Cincinnati, O.

C. W. Lasher Mfg. Co., Davenport, Ia.

N. & G. Taylor Co., Chestnut and 3d Sts., Philadelphia, Pa.

Valve Discs—
(See Discs.)

Valve Floor Stands—
Chapman Valve Mfg. Co., Indian Orchard, Mass.

Valve Packing—
(See Packing Valve.)

Valve Stems—
Finished Steel Co., Youngstown, O.

Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.

J. H. Williams & Co., Brooklyn, N. Y.

Valve Wheels, Steam—
(See Wheels, Steam Valve.)

Valves, Air, Water, Gas and Steam—

American Furnace & Machine Co., Pittsburgh, Pa.

American Steam Gauge & Valve Mfg. Co., Boston, Mass.

American Valve & Meter Co., Cincinnati, O.

Ashton Valve Co., Boston, Mass.

Chapman Valve Mfg. Co., Indian Orchard, Mass.

Crosby Steam Gauge & Valve Co., Boston.

Dimmick Pipe Co., Birmingham, Ala.

Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., N. Y.

Hancock Inspirator Co., 85-89 Liberty St., New York.

Jarecki Mfg. Co., Erie, Pa.

Jenkins Bros., 71 John St., New York.

Kennedy Valve Mfg. Co., 55 Beekman St., New York.

Lunkenheimer Company, Cincinnati, O.

McNab & Harlin Mfg. Co., 56 John St., New York.

H. Mueller Mfg. Co., Decatur, Ill.

Nolte Brass Co., Springfield, O.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Ventilators—

(See Registers and Ventilators.)

Ventilators and Chimney Caps—

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
 Buffalo Forge Co., Buffalo, N. Y.
 G. Drouve Co., Bridgeport, Ct.
 Globe Ventilator Co., Troy, N. Y.
 Hess-Snyder Co., Massillon, O.
 Kramer Bros. Foundry Co., Dayton, O.
 Merchant & Evans Co., Philadelphia, Pa.
 Schrieber & Conchar Mfg. Co., Dubuque, Ia.

N. & G. Taylor Co., Chestnut and 3d Sts., Philadelphia, Pa.
 Wiley & Russell Mfg. Co., Greenfield, Mass.

Ventilators, Building—

Berger Mfg. Co., Canton, O.
 Burt Mfg. Co., Akron, O.
 Edwards Mfg. Co., Cincinnati, O.
 Globe Ventilator Co., Troy, N. Y.
 Goff, Horner & Co., Pittsburgh, Pa.
 Howard & Morse, 45 Fulton St., N. Y.
 Merchant & Evans Co., Philadelphia, Pa.

Ventilators, Flue—

Berger Mfg. Co., Canton, O.
 Merchant & Evans Co., Philadelphia, Pa.

Ventilators, Railroad Car

Globe Ventilator Co., Troy, N. Y.
 Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

Ventilators, Skylight—

Burt Mfg. Co., Akron, O.
 Edwards Mfg. Co., Cincinnati, O.
 Globe Ventilator Co., Troy, N. Y.
 Hitchens & Co., 1170 Broadway, N. Y.
 Lord & Burnham Co., Irvington-on-Hudson, N. Y.

Ventilators, Window—

Caldwell Mfg. Co., Rochester, N. Y.
 Pullman Mfg. Co., Rochester, N. Y.

Vents, Air—

John C. Kupferle, St. Louis, Mo.

Vessel Loading and Unloading Machinery—

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.
 Wellman-Seaver-Morgan Co., Cleveland, O.

Vise and Anvil—

(See Anvil and Vise.)

Vise Attachments—

Hollands Mfg. Co., Erie, Pa.
 Tower & Lyon Co., 95 Chambers St., New York.

Vise Clamps, Jaws—

(See Clamps, Jaws.)

Vise Grips, Pine—

Athol Machine Co., Athol, Mass.
 Hollands Mfg. Co., Erie, Pa.
 Prentiss Vise Co., 44 Barclay St., N. Y.

Vise Jaw Caps—

Hollands Mfg. Co., Erie, Pa.
 Prentiss Vise Co., 44 Barclay St., N. Y.

Vises, Amateur—

Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
 Columbia Grey Iron Co., Columbia, Pa.

Vises, Bicycle—

Fox Machine Co., Grand Rapids, Mich.
 Hollands Mfg. Co., Erie, Pa.
 Prentiss Vise Co., 44 Barclay St., N. Y.

Vises, Cabinet—

Barbour-Stockwell Co., Cambridgeport, Mass.

Emmert Mfg. Co., Waynesboro, Pa.

Hollands Mfg. Co., Erie, Pa.
 Oliver Machinery Co., Grand Rapids, Mich.

J. D. Smith Foundry Supply Co., Cleveland, O.
 Tower & Lyon Co., 95 Chambers St., New York.

Wyman & Gordon, Worcester, Mass.

Vises, Carpenters' Wooden—

Hollands Mfg. Co., Erie, Pa.
 Oliver Machinery Co., Grand Rapids, Mich.

Vises, Coach Makers'—

Athol Machine Co., Athol, Mass.
 Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.

Columbian Hardware Co., Cleveland, O.

Emmert Mfg. Co., Waynesboro, Pa.

Hollands Mfg. Co., Erie, Pa.

Howard Iron Works, Buffalo, N. Y.

Chas. Parker Co., Meriden, Ct.

Vises, Die Sinkers'—

Chas. Parker Co., Meriden, Ct.

Vises, Drill and Anvil—

Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.

A. L. Henderer's Sons, Wilmington, Del.

Millers Falls Co., 28 Warren St., N. Y.

Prentiss Vise Co., 44 Barclay St., N. Y.

Vises, Drill Press—

Bicknell Mfg. & Supply Co., Janesville, Wis.

Hill-Standard Mfg. Co., Anderson, Ind.

Hollands Mfg. Co., Erie, Pa.

Vanderbeek Tool Works, Hartford, Ct.

Williamson Mfg. Co., Bradford, Pa.

Vises, Hand or Pin—

Athol Machine Co., Athol, Mass.

Billings & Spencer Co., Hartford, Ct.

Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.

John S. Fray & Co., Bridgeport, Ct.

Goodell-Pratt Co., Greenfield, Mass.

Howard Iron Works, Buffalo, N. Y.

Millers Falls Co., 28 Warren St., N. Y.

Schuchardt & Schutte, 136 Liberty St., New York.

Otis A. Smith, Rockfall, Ct.

L. S. Starrett Co., Athol, Mass.

Utica Drop Forge & Tool Co., Utica, N. Y.

Vises, Horseshoers'—

Becker-Brainard Milling Machine Co., Hyde Park, Mass.

Blake & Johnson, Waterbury, Ct.

P. F. Burke, Boston, Mass.

Columbian Hardware Co., Cleveland, O.

Hollands Mfg. Co., Erie, Pa.

Kinsley Iron & Machine Co., Canton, Mass.

Wells Bros. Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Vises, Jewelers'—

Athol Machine Co., Athol, Mass.

Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.

Chestnut St., Philadelphia, Pa.

Columbia Grey Iron Co., Columbia, Pa.

Emmert Mfg. Co., Waynesboro, Pa.

Williamson Mfg. Co., Bradford, Pa.

Vises, Machine—

Schuchardt & Schutte, 136 Liberty St., New York.

Vises, Milling Machine and Planer—

Bickell Mfg. & Supply Co., Janesville, Wis.
Brown & Sharpe Mfg. Co., Providence, R. I.
Fairbanks Co., 416 Broome St., New York.
Fox Machine Co., Grand Rapids, Mich.
Gould & Eberhardt, Newark, N. J.
Hendey Machine Co., Torrington, Ct.
Hill-Standard Mfg. Co., Anderson, Ind.
Hollands Mfg. Co., Erie, Pa.
Niles-Bement-Pond Co., 111 Broadway, New York.
Potter & Johnston Machine Co., Pawtucket, R. I.
Pratt & Whitney Co., Hartford, Ct.
Vanderbeek Tool Works, Hartford, Ct.
Williamson Mfg. Co., Bradford, Pa.

Vises, Parallel—

Athol Machine Co., Athol, Mass.
Bignall & Keeler Mfg. Co., Edwardsville, Ill.

Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
Columbian Hardware Co., Cleveland, O.
Eagle Anvil Works, Trenton, N. J.
Emmert Mfg. Co., Waynesboro, Pa.
Helwig Mfg. Co., St. Paul, Minn.
Hollands Mfg. Co., Erie, Pa.
Howard Iron Works, Buffalo, N. Y.
Merrill Bros., Brooklyn, N. Y.
Millers Falls Co., 23 Warren St., N. Y.
Chas. Parker Co., Meriden, Ct.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Prentiss Vise Co., 44 Barclay St., N. Y.
Tower & Lyon Co., 95 Chambers St., New York.
Williamson Mfg. Co., Bradford, Pa.

Vises, Pin—

(See Vises, Hand or Pin.)

Vises, Pipe—

Bignall & Keeler Mfg. Co., Edwardsville, Ind.

Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
Butterfield & Co., Derby Line, Vt.
Curtis & Curtis Co., Bridgeport, Ct.
Emmert Mfg. Co., Waynesboro, Pa.
Exeter Machine Works, Exeter, N. H.
A. L. Hender's Sons, Wilmington, Del.
Hollands Mfg. Co., Erie, Pa.
Howard Iron Works, Buffalo, N. Y.
Humphreys Mfg. Co., Mansfield, O.
Jarecki Mfg. Co., Erie, Pa.
Chas. Parker Co., Meriden, Ct.
J. E. Porter Co., Ottawa, Ill.
Prentiss Vise Co., 44 Barclay St., N. Y.
D. Saunders' Sons, Yonkers, N. Y.
Tower & Lyon Co., 95 Chambers St., New York.
Vanderman Plumbing & Heating Co., Willimantic, Ct.
Walworth Mfg. Co., Boston, Mass.
J. H. Williams & Co., Brooklyn, N. Y.
Williamson Mfg. Co., Bradford, Pa.

Vises, Pipe and Bench Combination—

Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.

Vises, Saw Filers—

E. C. Atkins & Co., Indianapolis, Ind.
Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
Henry Diston & Sons, Philadelphia, Pa.

C. E. Jennings & Co., 42 Murray St., New York.

Oliver Machinery Co., Grand Rapids, Mich.
Chas. Parker Co., Meriden, Ct.
Rock River Mfg. Co., Dixon, Ill.
Schreiber & Conchar Mfg. Co., Dubuque, Ia.
Seneca Falls Mfg. Co., Seneca Falls, N. Y.
Simonds Mfg. Co., Fitchburg, Mass.
Vises, Solid Box—
Columbian Hardware Co., Cleveland, O.
Prentiss Vise Co., 44 Barclay St., N. Y.
Tower & Lyon Co., 95 Chambers St., New York.

Vises, Tubing, Polished—

Hollands Mfg. Co., Erie, Pa.
Vanderman Plumbing & Heating Co., Willimantic, Ct.

Vises, Woodworkers—

Athol Machine Co., Athol, Mass.
Barbour-Stockwell Co., Cambridgeport, Mass.

Columbian Hardware Co., Cleveland, O.
Emmert Mfg. Co., Waynesboro, Pa.
Fox Machine Co., Grand Rapids, Mich.
Hollands Mfg. Co., Erie, Pa.
Oliver Machinery Co., Grand Rapids, Mich.

Prentiss Vise Co., 44 Barclay St., N. Y.
Wyman & Gordon, Worcester, Mass.

Volt Meters—

(See Meters, Recording Volt.)

Wads, Gun—

Union Metallic Cartridge Co., Bridgeport, Ct.

Waffle Irons—

(See Irons, Waffle.)

Waging Wire—

(See Wire Pointing.)

Wagon and Carriage Machinery—

National Machinery Co., Tiffin, O.
Williams, White & Co., Moline, Ill.
Wagon Axles, Chains, &c.—
(See Axles, Chains, &c.)

Wagons, Boys—

Hill-Standard Mfg. Co., Anderson, Ind.

Wagons, Delivery—

Sycamore Wagon Works, Sycamore, Ill.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Wagons, Dump—

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Wagons, Live Stock—

Sycamore Wagon Works, Sycamore, Ill.

Wagons, Mill—

Chase Foundry & Mfg. Co., Columbus, O.
Jackson Mfg. Co., Harrisburg, Pa.
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Waist Hangers—

(See Hangers, Garment and Trouser.)

Waiters, Dumb—

Energy Elevator Co., 408 Cherry St., Philadelphia, Pa.
Grant Mfg. & Machine Co., Bridgeport, Ct.

Morse, Williams & Co., Philadelphia, Pa.
Sidney Elevator Mfg. Co., Sidney, O.

J. G. Speidel, Reading, Pa.
Storm Mfg. Co., Newark, N. J.

Warner Elevator Mfg. Co., Cincinnati, O.
Waraw Elevator Co., Newark, N. Y.

Waiters, Silver—
International Silver Co., 125 Maiden Lane, New York.

Ventilators—

(See Registers and Ventilators.)

Ventilators and Chimney Caps—

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
 Buffalo Forge Co., Buffalo, N. Y.
 G. Drouve Co., Bridgeport, Ct.
 Globe Ventilator Co., Troy, N. Y.
 Hess-Snyder Co., Massillon, O.
 Kramer Bros. Foundry Co., Dayton, O.
 Merchant & Evans Co., Philadelphia, Pa.
 Schrieber & Conchar Mfg. Co., Dubuque, Ia.
 N. & G. Taylor Co., Chestnut and 3d Sts., Philadelphia, Pa.
 Wiley & Russell Mfg. Co., Greenfield, Mass.

Ventilators, Building—

Berger Mfg. Co., Canton, O.
 Burt Mfg. Co., Akron, O.
 Edwards Mfg. Co., Cincinnati, O.
 Globe Ventilator Co., Troy, N. Y.
 Goff, Horner & Co., Pittsburgh, Pa.
 Howard & Morse, 45 Fulton St., N. Y.
 Merchant & Evans Co., Philadelphia, Pa.

Ventilators, Flue—

Berger Mfg. Co., Canton, O.
 Merchant & Evans Co., Philadelphia, Pa.
Ventilators, Railroad Car
 Globe Ventilator Co., Troy, N. Y.
 Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

Ventilators, Skylight—

Burt Mfg. Co., Akron, O.
 Edwards Mfg. Co., Cincinnati, O.
 Globe Ventilator Co., Troy, N. Y.
 Hitchins & Co., 1170 Broadway, N. Y.
 Lord & Burnham Co., Irvington-on-Hudson, N. Y.

Ventilators, Window—

Caldwell Mfg. Co., Rochester, N. Y.
 Pullman Mfg. Co., Rochester, N. Y.

Vents, Air—

John C. Kupperle, St. Louis, Mo.

Vessel Loading and Unloading Machinery—

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.
 Wellman-Seaver-Morgan Co., Cleveland, O.

Vise and Anvil—

(See Anvil and Vise.)

Vise Attachments—

Hollands Mfg. Co., Erie, Pa.
 Tower & Lyon Co., 95 Chambers St., New York.

Vise Clamps, Jaws—

(See Clamps, Jaws.)

Vise Grips, Pins—

Athol Machine Co., Athol, Mass.
 Hollands Mfg. Co., Erie, Pa.
 Prentiss Vise Co., 44 Barclay St., N. Y.

Vise Jaw Caps—

Hollands Mfg. Co., Erie, Pa.
 Prentiss Vise Co., 44 Barclay St., N. Y.

Vises, Amateur—

Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
 Columbia Grey Iron Co., Columbia, Pa.

Vises, Bicycle—

Fox Machine Co., Grand Rapids, Mich.
 Hollands Mfg. Co., Erie, Pa.
 Prentiss Vise Co., 44 Barclay St., N. Y.

Vises, Cabinet—

Barbour-Stockwell Co., Cambridgeport, Mass.

Emmert Mfg. Co., Waynesboro, Pa.

Holland Mfg. Co., Erie, Pa.
 Oliver Machinery Co., Grand Rapids, Mich.

J. D. Smith Foundry Supply Co., Cleveland, O.
 Tower & Lyon Co., 95 Chambers St., New York.

Wymann & Gordon, Worcester, Mass.

Vises, Carpenters' Wooden—
 Hollands Mfg. Co., Erie, Pa.
 Oliver Machinery Co., Grand Rapids, Mich.

Vises, Coach Makers—

Athol Machine Co., Athol, Mass.
 Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
 Columbian Hardware Co., Cleveland, O.
 Emmert Mfg. Co., Waynesboro, Pa.
 Hollands Mfg. Co., Erie, Pa.
 Howard Iron Works, Buffalo, N. Y.
 Chas. Parker Co., Meriden, Ct.

Vises, Die Sinker—

Chas. Parker Co., Meriden, Ct.

Vises, Drill and Anvil—

Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
 Fairbanks Co., 416 Broome St., New York.
 A. L. Henderer's Sons, Wilmington, Del.
 Millers Falls Co., 28 Warren St., N. Y.
 Prentiss Vise Co., 44 Barclay St., N. Y.

Vises, Drill Press—

Bicknell Mfg. & Supply Co., Janesville, Wis.
 Hill-Standard Mfg. Co., Anderson, Ind.
 Hollands Mfg. Co., Erie, Pa.
 Vanderbeek Tool Works, Hartford, Ct.
 Williamson Mfg. Co., Bradford, Pa.

Vises, Hand or Pin—

Athol Machine Co., Athol, Mass.
 Billings & Spencer Co., Hartford, Ct.
 Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
 Fairbanks Co., 416 Broome St., New York.
 John S. Fray & Co., Bridgeport, Ct.
 Goodell-Pratt Co., Greenfield, Mass.
 Howard Iron Works, Buffalo, N. Y.
 Millers Falls Co., 28 Warren St., N. Y.
 Schuchardt & Schutte, 136 Liberty St., New York.

Otis A. Smith, Rockfall, Ct.

L. S. Starrett Co., Athol, Mass.
 Utica Drop Forge & Tool Co., Utica, N. Y.

Vises, Horseshoers—

Becker-Brainard Milling Machine Co., Hyde Park, Mass.
 Blake & Johnson, Waterbury, Ct.
 P. F. Burke, Boston, Mass.
 Columbian Hardware Co., Cleveland, O.
 Hollands Mfg. Co., Erie, Pa.
 Kinsley Iron & Machine Co., Canton, Mass.

Wells Bros. Co., Greenfield, Mass.
 Wiley & Russell Mfg. Co., Greenfield, Mass.

Vises, Jewelers—

Athol Machine Co., Athol, Mass.
 Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
 Columbia Grey Iron Co., Columbia, Pa.
 Emmert Mfg. Co., Waynesboro, Pa.
 Williamson Mfg. Co., Bradford, Pa.

Vises, Machine—

Schuchardt & Schutte, 136 Liberty St., New York.

Vises, Milling Machine and Planer—

Bicknell Mfg. & Supply Co., Janesville, Wis.
Brown & Sharpe Mfg. Co., Providence, R. I.
Fairbanks Co., 416 Broome St., New York.
Fox Machine Co., Grand Rapids, Mich.
Gould & Eberhardt, Newark, N. J.
Hendey Machine Co., Torrington, Ct.
Hill-Standard Mfg. Co., Anderson, Ind.
Hollands Mfg. Co., Erie, Pa.
Niles-Bement-Pond Co., 111 Broadway, New York.
Potter & Johnston Machine Co., Pawtucket, R. I.
Pratt & Whitney Co., Hartford, Ct.
Vanderbeek Tool Works, Hartford, Ct.
Williamson Mfg. Co., Bradford, Pa.

Vises, Parallel—

Athol Machine Co., Athol, Mass.
Bignall & Keeler Mfg. Co., Edwardsville, Ill.
Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
Columbian Hardware Co., Cleveland, O.
Eagle Anvil Works, Trenton, N. J.
Emmert Mfg. Co., Waynesboro, Pa.
Helwig Mfg. Co., St. Paul, Minn.
Hollands Mfg. Co., Erie, Pa.
Howard Iron Works, Buffalo, N. Y.
Merrill Bros., Brooklyn, N. Y.
Millers Falls Co., 28 Warren St., N. Y.
Chas. Parker Co., Meriden, Ct.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Prentiss Vise Co., 44 Barclay St., N. Y.
Tower & Lyon Co., 95 Chambers St., New York.
Williamson Mfg. Co., Bradford, Pa.

Vises, Pin—

(See Vises, Hand or Pin.)

Vises, Pipe—

Bignall & Keeler Mfg. Co., Edwardsville, Ind.
Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
Butterfield & Co., Derby Line, Vt.
Curtis & Curtis Co., Bridgeport, Ct.
Emmert Mfg. Co., Waynesboro, Pa.
Exeter Machine Works, Exeter, N. H.
A. L. Henderer's Sons, Wilmington, Del.
Hollands Mfg. Co., Erie, Pa.
Howard Iron Works, Buffalo, N. Y.
Humphreys Mfg. Co., Mansfield, O.
Jarecki Mfg. Co., Erie, Pa.
Chas. Parker Co., Meriden, Ct.
J. E. Porter Co., Ottawa, Ill.
Prentiss Vise Co., 44 Barclay St., N. Y.
D. Saunders' Sons, Yonkers, N. Y.
Tower & Lyon Co., 95 Chambers St., New York.
Vanderman Plumbing & Heating Co., Willimantic, Ct.
Walworth Mfg. Co., Boston, Mass.
J. H. Williams & Co., Brooklyn, N. Y.
Williamson Mfg. Co., Bradford, Pa.

Vises, Pipe and Bench.

Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
Vises, Saw Filers—
E. C. Atkins & Co., Indianapolis, Ind.
Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
Henry Disston & Sons, Philadelphia, Pa.

C. E. Jennings & Co., 42 Murray St., New York.

Oliver Machinery Co., Grand Rapids, Mich.
Chas. Parker Co., Meriden, Ct.
Rock River Mfg. Co., Dixon, Ill.
Schreiber & Conchar Mfg. Co., Dubuque, Ia.
Seneca Falls Mfg. Co., Seneca Falls, N. Y.
Simonds Mfg. Co., Fitchburg, Mass.
Vises, Solid Box—
Columbian Hardware Co., Cleveland, O.
Prentiss Vise Co., 44 Barclay St., N. Y.
Tower & Lyon Co., 95 Chambers St., New York.

Vises, Tubing, Polished—

Hollands Mfg. Co., Erie, Pa.
Vanderman Plumbing & Heating Co., Willimantic, Ct.

Vises, Woodworkers—

Athol Machine Co., Athol, Mass.
Barbour-Stockwell Co., Cambridgeport, Mass.
Columbian Hardware Co., Cleveland, O.
Emmert Mfg. Co., Waynesboro, Pa.
Fox Machine Co., Grand Rapids, Mich.
Hollands Mfg. Co., Erie, Pa.
Oliver Machinery Co., Grand Rapids, Mich.

Prentiss Vise Co., 44 Barclay St., N. Y.
Wyman & Gordon, Worcester, Mass.

Volt Meters—

(See Meters, Recording Volt.)
Wads, Gun—
Union Metallic Cartridge Co., Bridgeport, Ct.

Waffle Irons—

(See Irons, Waffle.)

Waging Wire—

(See Wire Pointing.)

Wagon and Carriage Machinery—

National Machinery Co., Tiffin, O.
Williams, White & Co., Moline, Ill.
Wagon Axles, Chains, &c.—
(See Axles, Chains, &c.)

Wagons, Boys—

Hill-Standard Mfg. Co., Anderson, Ind.

Wagons, Delivery—

Sycamore Wagon Works, Sycamore, Ill.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Wagons, Dump—

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Wagons, Live Stock—

Sycamore Wagon Works, Sycamore, Ill.

Wagons, Mill—

Chase Foundry & Mfg. Co., Columbus, O.
Jackson Mfg. Co., Harrisburg, Pa.

Wagons, Mill—

Kilbourne & Jacobs Mfg. Co., Columbus, O.
(See Hangers, Garment and Trouser.)

Waiters, Dumb—

Energy Elevator Co., 408 Cherry St., Philadelphia, Pa.

Grant Mfg. & Machine Co., Bridgeport, Ct.

Morse, Williams & Co., Philadelphia, Pa.
Sidney Elevator Mfg. Co., Sidney, O.

J. G. Speidel, Reading, Pa.
Storm Mfg. Co., Newark, N. J.

Warner Elevator Mfg. Co., Cincinnati, O.
Warsaw Elevator Co., Warsaw, N. Y.

Waiters, Silver Plated—
International Silver Co., 113 Malden Lane, New York.

- Walk Scrapers**—
(See Scrapers, Walk and Street.)
- Wall Scrapers**— (See Scrapers.)
- Wantage Rods**—
(See Rods, Gauges, &c.)
- Wardrobe Hooks**—
(See Hooks, Coat, Hat, &c.)
- Wardrobes, Office and Shop**—
(See Lockers.)
- Ware, Aluminum**—
Republic Metalware Co., Buffalo, N. Y.
- Ware, Brass and Copper**—
Lalanc & Grosjean Mfg. Co., 19 Cliff St., New York.
- Ware, Enameled**—
Republic Metalware Co., Buffalo, N. Y.
- Ware, Fused Quartz**—
Avery Stamping Co., Cleveland, O.
- Ware, Galvanized Sheet Iron**—
Cleveland Stamping & Tool Co., Cleveland, O.
- Ware, Hollow Cast Iron Stove**—
Lalanc & Grosjean Mfg. Co., 19 Cliff St., New York.
- Ware, Hollow Silver and Silver Plated**—
International Silver Co., 9-13 Maiden Lane, New York.
- Ware, Hollow Steel**—
Avery Stamping Co., Cleveland, O.
- Ware, Nickel Plated**—
Cleveland Stamping & Tool Co., Cleveland, O.
- Ware, Plainished**—
Fanner Mfg. Co., Cleveland, O.
- Ware, Platinium**—
New York Stamping Co., Brooklyn, N. Y.
- Ware, Sheet Iron**—
Lalanc & Grosjean Mfg. Co., 19 Cliff St., New York.
- Ware, Tin**—
(See Tinware.)
- Ware, Wooden**—
Hill Dryer Co., Worcester, Mass.
- Warehouse Trucks**—
(See Trucks, Store Warehouse, etc.)
- Warm Air Furnaces**—
(See Furnaces, Warm Air.)
- Warmers, Soapstone Foot**—
Pike Mfg. Co., Pike, N. H.
- Warp and Yarn**—
Broderick & Bascom Rope Co., St. Louis.
- Wash Benches, Stands**—
(See Benches, Tubs and Wringers.)
- Washboard Blanks**—
Matthiessen & Hegeler Zinc Co., La Salle, Ill.
- Washboard Knives**—
(See Knives, Machine.)
- Washboards**—
Saginaw Mfg. Co., Saginaw, Mich.
- Washer Cutters**—
(See Cutters, Washer.)
- Washer Machines**—
National Machinery Co., Tiffin, O.
- Washers and Disks, Rubber**—
(See Gaskets and Rings, Rubber.)
- Washers and Street Hydrants**—
(See Hydrants and Street Washers.)
- Washers, Brass**—
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
- Washers, Cast**—
Geo. Q. Hill Co., Boston, Mass.
- Washers, Lead**—
H. Mueller Mfg. Co., Decatur, Ill.
- Washers, Metallic**—
Nictown Plate Washer Co., Philadelphia, Pa.
- Washers, Rubber**—
(See Gaskets and Rings, Rubber.)
- Washers, Gauge Glass**—
Arthur T. Rutter & Co., 256 Broadway, New York.
- Washers, Floor**—
(See Plates and Washers, Floor.)
- Washers, Galvanized**—
Keystone Nail Co., Philadelphia, Pa.
- Washers, Leather**—
M. Lanz & Sons, Pittsburgh, Pa.
- Washers, Lock**—
Nictown Plate Washer Co., Philadelphia, Pa.
- Washers, Metallic**—
W. Juniata St., Philadelphia, Pa.
- Washers, Prop Block**—
H. A. Rogers Co., 19 John St., New York.
- Washers, Railroad Car**—
Edwards Mfg. Co., Cincinnati, O.
- Washers, Rubber**—
(See Gaskets and Rings, Rubber.)

Washers, Shoddy—

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Washers, Steel—

Youngstown Iron & Steel Roofing Co., Youngstown, O.

Washers, Wooden—

E. B. Estes & Sons, 45-47 John St., N. Y.

Washers, Wrought—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Atlas Bolt & Screw Co., Cleveland, O.

Avery Stamping Co., Cleveland, O.

Belmont Iron Works, Inc., Philadelphia.

Boston Bolt Co., Boston, Mass.

Clark Bros. Bolt Co., Milldale, Ct.

Cobb & Drew, Plymouth, Mass.

Graham Nut Co., Pittsburgh, Pa.

Grand Crossing Tack Co., Grand Crossing, Ill.

Griffin Mfg. Co., Erie, Pa.

Sam'l Hall's Sons, 229-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Henry A. Hitner's Sons, cor. Huntingdon & Aramingo Aves., Philadelphia, Pa.

Hubbard & Co., Pittsburgh, Pa.

E. C. Jenkinson & Co., Newark, N. J.

M. Lanz & Sons, Pittsburgh, Pa.

Lawrence Bros., Sterling, Ill.

H. A. Matthews Mfg. Co., Seymour, Ct.

McKinney Mfg. Co., Allegheny, Pa.

Milton Mfg. Co., Milton, Pa.

Mount Carmel Bolt Co., Mt. Carmel, Ct.

National Bolt & Nut Co., Pittsburgh, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.

Nicetown Plate Washer Co., 1822-1850 W. Juniata St., Philadelphia, Pa.

Republic Iron & Steel Co., Chicago, Ill.

Rhode Island Tool Co., Providence, R. I.

St. Louis Screw Co., St. Louis, Mo.

J. H. Sessions & Son, Bristol, Ct.

Shelton Co., Shelton, Ct.

Stanley Works, New Britain, Ct.

Upson Nut Co., Cleveland, O.

W. & S. Mfg. Co., Worcester, Mass.

Wrought Washer Mfg. Co., Milwaukee, Wis.

Washers, Wrought, Square—

Nicetown Plate Washer Co., 1822-1850 Juniata St., Philadelphia, Pa.

Washing and Separating Machinery, Ore—

Jeffrey Mfg. Co., Columbus, O.

J. H. Lingle, Bellefonte, Pa.

Washing Machinery, Coal—

(See Coal Washing Machinery.)

Washing Machines—

H. F. Brammer Mfg. Co., Davenport, Ia.

Richmond Cedar Works, Richmond, Va.

Standard Mfg. Co., Shelby, O.

White Lily Washer Co., Davenport, Ia.

Washing Machines, Rubber—

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Waste Baskets, Boxes, Cans—

(See Baskets, Boxes, Cans.)

Waste, Cotton—

Broderick & Bascom Rope Co., St. Louis.

Estes Mills, Fall River, Mass.

A. Leschen & Sons Rope Co., St. Louis.

Walsh's, Sons & Co., Newark, N. J.

Watch Machinery—

Blake & Johnson, Waterbury, Ct.

Stark Tool Co., Waltham, Mass.

Watches, Timers and Split Timers—

Riggs & Bro., 310 Market St., Philadelphia, Pa.

Watchmen's Clocks—

(See Clocks, Watchmen's.)

Water Closet Hinges—

(See Hinges, Water Closet Seat.)

Water Columns, Safety—

Lunkenheimer Co., Cincinnati, O.

Water Coolers, Elevators, &c.—

(See Coolers, Elevators, &c.)

Water Pipe, Riveted—

(See Pipe, Riveted Steel.)

Water Softening and Purifying Process—

Helwig Mfg. Co., St. Paul, Minn.

Wm. B. Scaife & Sons Co., Pittsburgh.

Water Wheels—

Humphrey Machine Co., Keene, N. H.

Lane Mfg. Co., Montpelier, Vt.

Novelty Iron Works, Dubuque, Ia.

Poole Engineering & Machine Co., Baltimore, Md.

Craig Ridgway & Son Co., Coatesville, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Water Works Supplies—

Charles Millar & Son Co., Utica, N. Y.

H. Mueller Mfg. Co., Decatur, Ill.

Plauger & Henger Mfg. Co., St. Louis, Mo.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh

Waterers, Stock—

(See Stock Waterers.)

Waterproof Wire—

(See Wires, Electrical.)

Watt Meters, Recording—

(See Meters, Recording Watt.)

Weatherproof Wire—

(See Wires, Electrical.)

Weaving Machinery, Wire Mattress—

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Weaving Machines, Rattan—

Chas. Lefter & Co., Brooklyn, N. Y.

Web Halters—

(See Halters.)

Webs, Turning, Fellow, &c.—

E. C. Atkins & Co., Indianapolis, Ind.

Henry Diaston & Sons, Philadelphia, Pa.

C. E. Jennings & Co., 42 Murray St., New York.

Millers Falls Co., 28 Warren St., N. Y.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

Wedges and Shims, Granite

Hawbridge Bros., Boston, Mass.

Mathew Lanz & Sons, Pittsburgh, Pa.

Solid Steel Tool & Forge Co., Tarentum, Pa.

Trow & Holden, Barre, Vt.

Wedges, Axe, Hammer and Hatchet—

Sawyer Bell Hook Co., 108-110 Duane St., New York.

Smith & Hemenway Co., 108-110 Duane St., New York.

Walter W. Woodruff & Sons Co., Mount Carmel, Pa.

Wedges, Coal—

Hubbard & Co., Pittsburgh, Pa.

Wedges, Steel—

Mathew Lanz & Sons, Pittsburgh, Pa.

Wedges, Wooden—

E. B. Estes & Sons, 45-47 John St., N. Y.

Weeders and Grass Hoës,**Horae-Power—**

Cuttaway Harrow Co., Higganum, Ct.

Weeders, Garden—

American Fork & Hoe Co., Cleveland, O.

Arcade Mfg. Co., Proport, Ill.

W. J. Clark Co., Salem, O.

Smith & Hemenway Co., 108-110 Duane St., New York.

Weeding Hooks—

(See Hooks, Weeding.)

Weighting Machines, Automatic, for Granular Materials—

Pratt & Whitney Co., Hartford, Ct.

Weights, Counter Balance Elevator—

E. E. Brown & Co., McKean & Meadow Sts., Philadelphia, Pa.

Salem Elevator Works, Salem, Mass.

Weights, Hitching—

Covert Mfg. Co., Troy, N. Y.

Kramer Bros. Foundry Co., Dayton, O.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Root Bros. Co., Plymouth, O.

Weights, Paver—

Wrightsville Hardware Co., Wrightsville, Pa.

Weights, Sash—

E. E. Brown & Co., McKean and Meadow Sts., Philadelphia, Pa.

Kramer Bros. Foundry Co., Dayton, O.

Wm. B. Waller & Co., Marquette Bldg., Chicago, Ill.

Weights, Test—

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.

Lowell Scale Co., Lowell, Mass.

Standard Scale Supply Co., Pittsburgh.

Welding Compounds—

Phillips-Laffitte Co., Pennsylvania Bldg., Philadelphia, Pa.

Welding, Electric—

Harold McCalla, 619 N. Front St., Philadelphia, Pa.

McClernan & Orr, Monadnock Block, Chicago, Ill.

Standard Welding Co., Cleveland, O.

Welding Iron and Steel,**Thermit Process—**

Goldschmidt Thermit Co., 43 Exchange Pl., New York.

Welding Machines, Electric—

C. & C. Electric Co., Garwood, N. J.

Welding Machines, Flue—

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Welding Machines, Tire—

Long & Allstatter Co., Hamilton, O.

Williams, White & Co., Moline, Ill.

Welding Plates—

Phillips-Laffitte Co., Pennsylvania Bldg., Philadelphia, Pa.

Well Chains, Curbs, &c.—

(See Chains, Curbs, &c.)

Well Machinery—A. D. Cook, Lawrenceburg, Ind.
Novelty Iron Works, Dubuque, Ia.
Struthers, Wells & Co., Warren, Pa.**Well Supplies and Tools (Pumps, Cylinders, Valves, Tubular Well Tools, &c.)**

Barnes Mfg. Co., Mansfield, O.

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

A. D. Cook, Lawrenceburg, Ind.

Davis-Hansen Co., Oshkosh, Wis.

Deming Co., Salem, O.

W. & B. Douglas, Middletown, Ct.

Stanley G. Flag & Co., Philadelphia, Pa.

Goulds Mfg. Co., Seneca Falls, N. Y.

Hess-Snyder Co., Massillon, O.

Humphreys Mfg. Co., Mansfield, O.

Jarecki Mfg. Co., Erie, Pa.

Jenkins Bros., 71 John St., New York.

Mark Mfg. Co., Chicago, Ill.

F. E. Myers & Bro., Ashland, O.

Novelty Iron Works, Dubuque, Ia.

J. E. Porter Co., Ottawa, Ill.

Union Mfg. Co., New Britain, Ct.

Wharf Spikes—

(See Spikes, Dock, Wharf, &c.)

Wheel Chain—

(See Chain, Sprocket.)

Wheel Molding Machines, Car—

(See Molding Machines, Car Wheel.)

Wheels—

(See Axles and Wheels.)

Wheels, Automobile, Parts for—

Crosby Co., Buffalo, N. Y.

John R. Keim Mills, Buffalo, N. Y.

Wheels, Balance—

(See Fly Wheels.)

Wheels, Drill Bearing—

Atlas Car & Mfg. Co., Cleveland, O.

McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

Wheels, Barrow—

W. J. Clark Co., Salem, O.

Fairbanks Co., 416 Broome St., New York.

Jackson Mfg. Co., Harrisburg, Pa.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Sterling Wheelbarrow Co., Milwaukee, Wis.

Taylor Iron & Steel Co., High Bridge, N. J.

West Side Foundry Co., Troy, N. Y.

Wheels, Car—

American Steel Foundries, Fisher Bldg., Chicago, Ill.

Atlas Car & Mfg. Co., Cleveland, O.

Chase Foundry & Mfg. Co., Columbus, O.

Chattanooga Car & Foundry Co., Chattanooga, Tenn.

Chrome Steel Works, Chrome, N. J.

W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.

Arthur Koppel, 66-68 Broad St., N. Y.

Sheffield Car Co., Three Rivers, Mich.

Standard Car & Foundry Co., Pittsburgh.

Taylor Iron & Steel Co., High Bridge, N. J.

Ernst Wiener Co., 68 Broad St., N. Y.

MERCHANTS.

Henry Levi & Co., 26 So. 18th St., Philadelphia, Pa.

Pierson & Co., 29 Broadway, New York.

Wheels, Car, Cast Iron—

Sheffield Car Co., Three Rivers, Mich.

Wheels, Car, Chilled—

Atlas Car & Mfg. Co., Cleveland, O.

Arthur Koppel, 66-68 Broad St., N. Y.

- Wheels, Car. Steel—**
American Steel Foundries, Fisher Bldg., Chicago, Ill.
- Wheels, Car. Wood Center—**
Sheffield Car Co., Three Rivers, Mich.
- Wheels, Car. Wrought Steel—**
Sheffield Car Co., Three Rivers, Mich.
- Wheels, Carborundum—**
Carborundum Co., Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Pike Mfg. Co., Pike, N. H.
- Wheels, Caster, Soft Rubber—**
M. B. Schenck Co., Meriden, Ct.
- Wheels, Caster, Wooden—**
E. B. Estes & Sons, 45-47 John St., N. Y.
W. R. Hartigan, Collinsville, Ct.
- Wheels, Cast Steel—**
Taylor Iron & Steel Co., High Bridge, N. J.
- Wheels, Corundum—**
Abrasive Material Co., Philadelphia, Pa.
American Emery Wheel Works, Providence, R. I.
Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Northampton Emery Wheel Co., Leeds, Mass.
Norton Emery Wheel Co., Worcester, Mass.
Pike Mfg. Co., Pike, N. H.
Safety Emery Wheel Co., Springfield, O.
Star Corundum Wheel Co., Detroit, Mich.
- Wheels, Dental—**
Sterling Emery Wheel Mfg. Co., Tiffin, O.
Vitrified Wheel Co., Westfield, Mass.
- Wheels, Dental—**
Carborundum Co., Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
H. H. Franklin Mfg. Co., Syracuse, N. Y.
Norton Emery Wheel Co., Worcester, Mass.
Pike Mfg. Co., Pike, N. H.
- Wheels, Emery—**
Abrasive Material Co., Philadelphia, Pa.
American Emery Wheel Works, Providence, R. I.
Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
Carborundum Co., Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Diamond Machine Co., Providence, R. I.
New York Belting & Packing Co., 91-93 Chambers St., New York.
Northampton Emery Wheel Co., Leeds, Mass.
Norton Emery Wheel Co., Worcester, Mass.
Pike Mfg. Co., Pike, N. H.
Safety Emery Wheel Co., Springfield, O.
Springfield Mfg. Co., Bridgeport, Ct.
Star Corundum Wheel Co., Detroit, Mich.
Sterling Emery Wheel Mfg. Co., Tiffin, O.
Vitrified Wheel Co., Westfield, Mass.
- Wheels, Emery Razor—**
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Pike Mfg. Co., Pike, N. H.
- Wheels, Fifth—**
E. D. Clapp Mfg. Co., Auburn, N. Y.
Richard Eccles Co., Auburn, N. Y.
- Scranton Forging Co., Scranton, Pa.
M. Seward & Son Co., New Haven, Ct.
- Wheels, Fly—**
(See Fly Wheels.)
- Wheels, Forged Sheave and Truck—**
Bates Drop Forge Co., Indianapolis, Ind.
- Wheels, Grinding, for Sewing Machines—**
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
- Wheels, Manganese Steel—**
Taylor Iron & Steel Co., High Bridge, N. J.
- Wheels, Measuring, Tire—**
Wells Bros. Co., Greenfield, Mass.
Wiley & Russell Mfg. Co., Greenfield, Mass.
- Wheels, Polishing—**
Chas. H. Bealy & Co., 15-21 Clinton St., Chicago, Ill.
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Diamond Machine Co., Providence, R. I.
Divine Bros. Co., Utica, N. Y.
Hanson & Van Winkle Co., Newark, N. J.
Niles-Bement-Pond Co., 111 Broadway, New York.
Northampton Emery Wheel Co., Leeds, Mass.
Norton Emery Wheel Co., Worcester, Mass.
Osborn Mfg. Co., Cleveland, O.
Safety Emery Wheel Co., Springfield, O.
Springfield Mfg. Co., Bridgeport, Ct.
Springfield Tire & Rubber Co., Springfield, O.
Sterling Emery Wheel Mfg. Co., Tiffin, O.
Vitrified Wheel Co., Westfield, Mass.
Zucker & Levett & Loeb Co., 526-530 West 25th St., New York.
- Wheels, Propeller—**
Paul S. Reeves & Son, Philadelphia, Pa.
- Wheels, Pulley—**
E. B. Estes & Sons, 45-47 John St., N. Y.
- Wheels, Roller Skate—**
E. B. Estes & Sons, 45-47 John St., N. Y.
Gray Iron Foundry Co., Reading, Pa.
W. R. Hartigan, Collinsville, Ct.
- Wheels, Roll Grinding—**
American Emery Wheel Works, Providence, R. I.
Carborundum Co., Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
Safety Emery Wheel Co., Springfield, O.
Vitrified Wheel Co., Westfield, Mass.
- Wheels, Rubber Tired—**
Geo. P. Clark Co., Windsor Locks, Ct.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
- Wheels, Self Oiling Car—**
Chrome Steel Works, Chrome, N. J.
- Wheels, Sprocket—**
C. O. Bartlett & Snow Co., Cleveland, O.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Billings & Spencer Co., Hartford, Ct.
Boston Gear Works, Boston, Mass.
Buhl Malleable Co., Detroit, Mich.
Case Mfg. Co., Columbus, O.
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
W. E. Caldwell Co., Louisville, Ky.
Chrome Steel Works, Chrome, N. J.
Geo. V. Cresson Co., 3830 St. and Academy Ave., Philadelphia, Pa.

- I. & E. Greenwald Co., Cincinnati, O.
 Interstate Engineering Co., Bedford, Ct.
 Jeffrey Mfg. Co., Columbus, O.
 John R. Keim Mills, Buffalo, N. Y.
 Kilborn & Bishop Co., New Haven, Ct.
 Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.
 New Process Raw Hide Co., Syracuse, N. Y.
 Poole Engineering & Machine Co., Baltimore, Md.
 Taylor Iron & Steel Co., High Bridge, N. J.
 Wickes Bros., Saginaw, Mich.
- Wheels, Steam Valve—**
 E. B. Estes & Sons, 45-47 John St., N. Y.
- Wheels, Steel Tired—**
 Taylor Iron & Steel Co., High Bridge, N. J.
- Wheels, Steering, for Vessels—**
 Barnes Tool Co., New Haven, Ct.
- Wheels, Steering, Motor Boat—**
 A. B. Morris Co., Boston, Mass.
- Wheels, Tracing—**
 Arcade Mfg. Co., Freeport, Ill.
 Billings & Spencer Co., Hartford, Ct.
- Wheels, Traveling Crane—**
 Case Mfg. Co., Columbus, O.
- Wheels, Trolley, Bronze—**
 H. B. Ives Co., New Haven, Ct.
 W. G. Rowell & Co., Bridgeport, Ct.
- Wheels, Truck—**
 Atlas Car & Mfg. Co., Cleveland, O.
 Chase Foundry & Mfg. Co., Columbus, O.
 Geo. F. Clark Co., Windsor Locks, Ct.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
 R. W. Whitehurst Co., Norfolk, Va.
- Wheels, Truck, Roller Bearings for—**
 Fairbanks Co., 416 Broome St., New York.
- Wheels, Vehicle—**
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
- Wheels, Water—**
 (See Water Wheels.)
- Wheels, Well—**
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Plunger & Henger Mfg. Co., St. Louis.
 Reading Hardware Co., Reading, Pa.
 Susquehanna Castings Co., Wrightsville, Pa.
 Wrightsville Hardware Co., Wrightsville, Pa.
- Whip Sockets—**
 (See Sockets, Whip.)
- Whips, Carpet—**
 (See Beaters, Clothes, Carpet, &c.)
- Whistle Cord Hooks—**
 (See Hooks, Whistle Cord.)
- Whistles, Alarm—**
 Lunkenheimer Co., Cincinnati, O.
 Mossberg Wrench Co., Central Falls, R. I.
 W. R. Ostrander & Co., 22 Dey St., N. Y.
 Walworth Mfg. Co., Boston, Mass.
- Whistles, Speaking Tube—**
 Berger Mfg. Co., Canton, O.
 W. R. Ostrander & Co., 22 Dey St., N. Y.
- Whistles, Steam—**
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
 Ashton Valve Co., Boston, Mass.
 Crosby Steam Gauge & Valve Co., Boston.
 Fairbanks Co., 416 Broome St., New York.
 Lunkenheimer Co., Cincinnati, O.
- McNab & Harlin Mfg. Co., 56 John St., New York.
 Wm. Powell Co., Cincinnati, O.
 Walworth Mfg. Co., Boston, Mass.
 Wickes Bros., Saginaw, Mich.
 Walter A. Zelnicker Supply Co., St. Louis.
- White Brass—**
 (See Brass, White.)
- White Lead—**
 John Briggs & Co., Boston, Mass.
 New Castle Paint & Varnish Co., New Castle, Pa.
- White Lead Machinery—**
 Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.
 I. & E. Greenwald Co., Cincinnati, O.
 Poole Engineering & Machine Co., Baltimore, Md.
- Whitewash Brushes—**
 (See Brushes, Whitewash, Horse, &c.)
- Whitewashing Machines—**
 (See Paint and Whitewash Spraying Machines.)
- Whiting—**
 John Briggs & Co., Boston, Mass.
- Wick, Candle—**
 Estes Mills, Fall River, Mass.
- Wicks, Iron & Sons Rope Co., St. Louis.**
- Wickets—**
 (See Iron and Brass, Ornamental.)
- Winches—**
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Browning Engineering Co., Cleveland, O.
 Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
 Irving Mfg. & Tool Co., 157 Chambers St., New York.
 D. Round & Son, Cleveland, O.
 J. G. Speidel, Reading, Pa.
 Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.
- Yale & Towne Mfg. Co., 9-15 Murray St., New York.**
- Wind Mill Pumps, Regulators, Tanks—**
 (See Pumps, Regulators, Tanks.)
- Wind Mills—**
 (See Mills, Wind.)
- Winders, Sheet Metal—**
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
- Winders, Spring, Hand—**
 Smith & Hemenway Co., 108-110 Duane St., New York.
- Winding Machines, Bobbin—**
 (See Bobbin Winding Machines.)
- Windlasses—**
 Browning Engineering Co., Cleveland, O.
 Thos. Carlin's Sons Co., Allegheny, Pa.
 Irving Mfg. & Tool Co., 157 Chambers St., New York.
- Soule Steam Feed Works, Meridian, Miss.**
- Window Caps—**
 (See Caps, Door and Window, Metal.)
- Window Frames and Sash.**
- Fire Proof—**
 E. B. Badger & Sons Co., Boston, Mass.
- Edwards Mfg. Co., Cincinnati, O.**
- Window Opening Devices—**
 (See Openers, Sash and Window.)
- Window Screens—**
 (See Screens, Window.)
- Window Spring Bolts—**
 (See Bolts, Window Spring.)

Windows, Reversible—

Phenix Mfg. Co., Milwaukee, Wis.

Window Stop Adjusters—

(See Adjusters, Window Stop.)

Window Ventilating Bolts—

(See Bolts, Window Ventilating.)

Wire Pitchers—

(See Pitchers, Silver Plated.)

Wire, Aluminum—

Pittsburgh Reduction Co., Pittsburgh, Pa.

Scovill Mfg. Co., Waterbury, Ct.

Wire, Aluminum-Clad—

Duplex Metals Co., 208 Fifth Ave., N. Y.

Wire, Annealed Stone—

Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven, Ct.

Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.

Wickwire Bros., Cortland, N. Y.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Armor—

National Wire Corporation, New Haven, Ct.

Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.

Wire Armoring Machines—

Aiton Machine Co., 126 Liberty St., N. Y.

Wire, Avil—

Kidd Bros. & Burgher Steel Wire Co., McKees Rocks, Pa.

Morgan Spring Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.

Wire, Baling—

Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven, Ct.

Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire, Barbed—

Dillon-Griswold Wire Co., Sterling, Ill.

Grand Crossing Tack Co., Grand Crossing, Ill.

Ludlow-Saylor Wire Co., St. Louis, Mo.

National Wire Corporation, New Haven, Ct.

Pittsburgh Steel Co., Pittsburgh, Pa.

Wire, Basket Handle—

Morgan Spring Co., Worcester, Mass.

Wire Basket Handles—

(See Handles, Basket, Wire.)

Wire, Belt Hook—

Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven, Ct.

Trenton Iron Co., Trenton, N. J.

Wire Goods Co., Worcester, Mass.

Wire, Bicycle and Automobile Spoke—

Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven, Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.

Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.

Wire Goods Co., Worcester, Mass.

Wire, Bolt—

Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven, Ct.

Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.

Wickwire Bros., Cortland, N. Y.

Wright Wire Co., Worcester, Mass.

Wire, Bottling, Book Binder, &c.—

Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven, Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.

Wickwire Bros., Cortland, N. Y.

Wright Wire Co., Worcester, Mass.

Wire, Brass and Copper—

Bridgeport Brass Co., 253 B'way, N. Y.

Driver-Harris Wire Co., Harrison, N. J.

Hazard Mfg. Co., Wilkes-Barre, Pa.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Riverside Metal Co., Riverside, N. J.

Arthur T. Rutter & Co., 256 Broadway, New York.

Scovill Mfg. Co., Waterbury, Ct.

Spencer Wire Co., Worcester, Mass.

Hugh L. Thompson, Waterbury, Ct.

Washburn Wire Co., Phillipsdale, R. I.

Waterbury Brass Co., Waterbury, Ct.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Brass Piston—

Boston Gear Works, Boston, Mass.

Bridgeport Brass Co., 253 B'way, N. Y.

Hobson, Houghton & Co., 98 John St., New York.

Riverside Metal Co., Riverside, N. J.

Scovill Mfg. Co., Waterbury, Ct.

Waterbury Brass Co., Waterbury, Ct.

Wire, Brass Plated—

Spencer Wire Co., Worcester, Mass.

Wickwire Bros., Cortland, N. Y.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Brick Cutting—

Morgan Spring Co., Worcester, Mass.

Geo. Nash & Co., 24 S. Clinton St., Chicago, Ill.

National Wire Corporation, New Haven, Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.

Wright Wire Co., Worcester, Mass.

Wire, Bridge Pin—

Morgan Spring Co., Worcester, Mass.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

Wire, Bronze—

Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

Bridgeport Brass Co., 253 B'way, N. Y.

Morgan Spring Co., Worcester, Mass.

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Arthur T. Rutter & Co., 256 Broadway, New York.

Scovill Mfg. Co., Waterbury, Ct.

Waterbury Brass Co., Waterbury, Ct.

Wire, Bronze-Clad—

Duplex Metals Co., 208 Fifth Ave., N. Y.

Wire, Broom and Brush—
Cary Spring Works, 240-242 W. 29th St.,
New York.

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven,
Ct.

Arthur T. Rutter & Co., 256 Broadway,
New York.

Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.
Wickwire Bros., Cortland, N. Y.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Wire Brushes—
(See Brushes, Wire.)

Wire, Buckle—
Grand Crossing Tack Co., Grand Crossing,
Ill.

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven,
Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.
Wickwire Bros., Cortland, N. Y.

Wire, Bundling—
Grand Crossing Tack Co., Grand Cross-
ing, Ill.

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven,
Ct.

Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.
Wickwire Bros., Cortland, N. Y.
Wright Wire Co., Worcester, Mass.

Wire, Butt—
Grand Crossing Tack Co., Grand Cross-
ing, Ill.

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven,
Ct.

Riverside Metal Co., Riverside, N. J.
Scovill Mfg. Co., Waterbury, Ct.
Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.
Wickwire Bros., Cortland, N. Y.

Wire, Button Fastener—
Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven,
Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.
Wickwire Bros., Cortland, N. Y.
Wright Wire Co., Worcester, Mass.

Wire, Button Hook—
Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven,
Ct.

Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.
Wickwire Bros., Cortland, N. Y.
Wright Wire Co., Worcester, Mass.

Wire, Cable Armor—
National Wire Corporation, New Haven,
Ct.

Trenton Iron Co., Trenton, N. J.
Wright Wire Co., Worcester, Mass.

Wire Cabling Machines—
Alton Machine Co., 125 Liberty St., N. Y.

Wire, Card—
Cary Spring Works, 240-242 W. 29th St.,
New York.

Phosphor-Bronze Smelting Co., Ltd., 230
Washington Ave., Philadelphia, Pa.
Geo. W. Prentiss & Co., Holyoke, Mass.
Riverside Metal Co., Riverside, N. J.
Spencer Wire Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Wire, Car Seal—
National Wire Corporation, New Haven,
Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.
Wright Wire Co., Worcester, Mass.

Wire, Cast Steel—
Cary Spring Works, 240-242 W. 29th St.,
New York.

Kidd Bros. & Burgher Steel Wire Co.,
McKee's Rocks, Pa.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Geo. Nash & Co., 24 S. Clinton St., Chi-
cago, Ill.

National Wire Corporation, New Haven,
Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.
Wire Goods Co., Worcester, Mass.

Wire, Chisels, Coilers, &c.—
(See Chisels, Coilers, &c.)

Wire, Clock Spring—
Cary Spring Works, 240-242 W. 29th St.,
New York.

Geo. Nash & Co., 24 S. Clinton St., Chi-
cago, Ill.

National Wire Corporation, New Haven,
Ct.

Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.

Wire Cloth—
(See Cloth.)

Wire Cloth Floors—
(See Floors.)

Wire Cloth, Netting—
(See Cloth, Netting, Wire.)

Wire, Coat and Hat Hook—
Grand Crossing Tack Co., Grand Cross-
ing, Ill.

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven,
Ct.

Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.
Wire Goods Co., Worcester, Mass.

Wire, Coiled Spiral Spring—
Cary Spring Works, 240-242 W. 29th St.,
New York.

Cleveland Wire Spring Co., Cleveland, O.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wire, Cold Drawn Steel—
Morgan Spring Co., Worcester, Mass.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.

Wickwire Bros., Cortland, N. Y.

Wire, Copper-Clad—

Duplex Metals Co., 208 Fifth Ave., N. Y.

Wire, Coppered Steel

Spring—

Cleveland Wire Spring Co., Cleveland, O.

Morgan Spring Co., Worcester, Mass.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire, Cord—

National Wire Corporation, New Haven,

Ct.

Phosphor-Bronze Smelting Co., Ltd., 2200

Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Core—

Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven,

Ct.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wire, Cotton—

Bridgeport Brass Co., 253 B'way, N. Y.

Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven,

Ct.

Phosphor-Bronze Smelting Co., Ltd., 2200

Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Wire Goods Co., Worcester, Mass.

Wire, Crimping—

Adam's Steel & Wire Works, Joliet, Ill.

Grand Crossing Tack Co., Grand Cross-

ing, Ill.

Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven,

Ct.

Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire Cutting Machines—

(See Straightening and Cutting Machines,

Wire.)

Wire, Damper Rod—

Grand Crossing Tack Co., Grand Cross-

ing, Ill.

National Wire Corporation, New Haven,

Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.

Wire, Dental—

Hobson, Houghton & Co., 98 John St.,

New York.

Kidd Bros. & Burgher Steel Wire Co.,

McKee's Rocks, Pa.

Geo. Nash & Co., 24 S. Clinton St., Chi-

cago, Ill.

Wire Die Reaming Lathes—

Wright Wire Co., Worcester, Mass.

Wire Draw Benches—

(See Draw Benches.)

Wire, Drawer Pull—

National Wire Corporation, New Haven,

Ct.

Spencer Wire Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Wire, Drawn, for Ropes—

National Wire Corporation, New Haven,

Ct.

Phosphor-Bronze Smelting Co., Ltd., 2200

Washington Ave., Philadelphia, Pa.

Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.

Wickwire Bros., Cortland, N. Y.

Wright Wire Co., Worcester, Mass.

Wire Draw Plates—

Hobson, Houghton & Co., Ltd., 98 John

St., New York.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire, Elevator—

National Wire Corporation, New Haven,

Ct.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire, Flat—

Bridgeport Brass Co., 253 B'way, N. Y.

Cary Spring Works, 240-242 W. 29th St.,

New York.

Miller & Van Winkle, Brooklyn, N. Y.

Geo. Nash & Co., 24 S. Clinton St., Chi-

cago, Ill.

National Wire Corporation, New Haven,

Ct.

Phosphor-Bronze Smelting Co., Ltd., 2200

Washington Ave., Philadelphia, Pa.

Geo. W. Prentiss & Co., Holyoke, Mass.

Riverside Metal Co., Riverside, N. J.

Seovill Mfg. Co., Waterbury, Ct.

Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire Flattening Mills—

Blake & Johnson, Waterbury, Ct.

Henry Perkins Co., Bridgewater, Mass.

Waterbury Farrel Foundry & Machine

Co., Waterbury, Ct.

Wright Wire Co., Worcester, Mass.

Wire, Florists—

Grand Crossing Tack Co., Grand Crossing,

Ill.

National Wire Corporation, New Haven,

Ct.

Parker Wire Goods Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire Forming—

(See Wire Shapes, to order.)

Wire, Galvanized Market—

Dillon-Griswold Wire Co., Sterling, Ill.

Grand Crossing Tack Co., Grand Cross-

ing, Ill.

National Wire Corporation, New Haven,

Ct.

Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.

Wickwire Bros., Cortland, N. Y.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Gas Tubing—

National Wire Corporation, New Haven,

Ct.

Wright Wire Co., Worcester, Mass.

Wire, German Silver—

Bridgeport Brass Co., 253 B'way, N. Y.

Driver-Harris Wire Co., Harrison, N. J.

Riverside Metal Co., Riverside, N. J.

Arthur T. Rutter & Co., 256 Broadway,

New York.

Seovill Mfg. Co., Waterbury, Ct.

Waterbury Brass Co., Waterbury, Ct.

Wire, Gimlet—

Kidd Bros. & Burgher Steel Wire Co.
McKee's Rocks, Pa.

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven,
Ct.

Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.

Wire Goods, Bright—

Baird Machine Co., Oakville, Ct.
Blake & Johnson, Waterbury, Ct.
M. S. Brooks & Sons, Chester, Ct.
John H. Graham & Co., 113 Chambers
St., New York.

Grand Crossing Tack Co., Grand Crossing,
Ill.

Geo. Q. Hill Co., Boston, Mass.
E. Jenckes Mfg. Co., Pawtucket, R. I.
Osawan Mills Co., Norwich, Ct.
Parker Wire Goods Co., Worcester, Mass.
Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.
Wire Goods Co., Worcester, Mass.

Wire Goods, Mill—

M. S. Brooks & Sons, Chester, Ct.
Hindley Mfg. Co., Valley Falls, R. I.
E. Jenckes Mfg. Co., Pawtucket, R. I.
Parker Wire Goods Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.
Wire Goods Co., Worcester, Mass.

Wire Goods, to Order—

Baird Machine Co., Oakville, Ct.
Blake & Johnson, Waterbury, Ct.
M. S. Brooks & Sons, Chester, Ct.
Glen Mfg. Co., Ellwood City, Pa.
Geo. Q. Hill Co., Boston, Mass.
E. Jenckes Mfg. Co., Pawtucket, R. I.
R. C. Jenkinson & Co., Newark, N. J.
Kilbourne Mfg. Co., Troy, N. Y.
Parker Wire Goods Co., Worcester, Mass.
Scovill Mfg. Co., Waterbury, Ct.
Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.
Wire Goods Co., Worcester, Mass.

Wire, Gun Screw—

Grand Crossing Tack Co., Grand Crossing,
Ill.

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven,
Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.

Wire, Guy, Galvanized—

Grand Crossing Tack Co., Grand Crossing,
Ill.
National Wire Corporation, New Haven,
Ct.

Trenton Iron Co., Trenton, N. J.
Wright Wire Co., Worcester, Mass.

Wire, Hair Pin—

Morgan Spring Co., Worcester, Mass.
Scovill Mfg. Co., Waterbury, Ct.
Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Wright Wire Co., Worcester, Mass.

Wire, Haulage—

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven,
Ct.

Wright Wire Co., Worcester, Mass.

Wire, Heddle—

Cleveland Wire Spring Co., Cleveland, O.
Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven,
Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.
Wright Wire Co., Worcester, Mass.

Wire, Hoisting Rope—

National Wire Corporation, New Haven,
Ct.

Phosphor-Bronze Smelting Co., Ltd., 2200
Washington Ave., Philadelphia, Pa.
Riverside Metal Co., Riverside, N. J.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.
Wright Wire Co., Worcester, Mass.

Wire, Hook and Eye—

Bridgeport Brass Co., 233 B'way, N. Y.
Grand Crossing Tack Co., Grand Crossing,
Ill.

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven,
Ct.

Scovill Mfg. Co., Waterbury, Ct.
Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Waterbury Brass Co., Waterbury, Ct.
Wire Goods Co., Worcester, Mass.

Wire, Horse Card—

National Wire Corporation, New Haven,
Ct.

Spencer Wire Co., Worcester, Mass.

Wire, Horse Nail—

National Wire Corporation, New Haven,
Ct.

Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.

Wire, Hutter—

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven,
Ct.

Spencer Wire Co., Worcester, Mass.

Wire, Iron and Steel, Mar-

ket, Fence, Stone, &c.—
Dillon-Griswold Wire Co., Sterling, Ill.
Grand Crossing Tack Co., Grand Crossing,
Ill.

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven,
Ct.

Parker Wire Goods Co., Worcester, Mass.
Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.
Wickwire Bros., Cortland, N. Y.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Wire, Jack Chain—

National Wire Corporation, New Haven,
Ct.

Wire Kitchen Articles—

(See Kitchen Articles, Wire.)

Wire, Lock, Hat, Brush and

Curtain—
Cary Spring Works, 240-242 W. 29th St.,
New York.

Miller & Van Winkle, Brooklyn, N. Y.
National Wire Corporation, New Haven,
Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Wire Lockers—

(See Lockers, Office and Shop.)

Wire Machinery, Barbed—
Wilber Emery, Oberlin, O.

Wire, Mattress—
Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven, Ct.

Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Wright Wire Co., Worcester, Mass.

Wire Mill Plants—
Aiton Machine Co., 126 Liberty St., N. Y.
Ford & Donnelly, Kokomo Ind.
Garrett-Cromwell Engineering Co., Cleveland, O.

Morgan Construction Co., Worcester, Mass.
Hugh L. Thompson, Waterbury, Ct.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Wire, Music—
Cary Spring Works, 240-242 W. 29th St., New York.

Alfred Field & Co., 93 Chambers St., New York.

Hobson, Houghton & Co., 98 John St., New York.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven, Ct.

Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.
Waterbury Co., 69 South St., N. Y.

Wire, Nail—
Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven, Ct.

Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.
Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.
Wire Goods Co., Worcester, Mass.

Wire, Needle—
Hobson, Houghton & Co., Ltd., 98 John St., New York.

Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.

Morgan Spring Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.
Wheelock, Lovejoy & Co., 23 Cliff St., N. Y.

Wire, Nickel—
Hermann Boker & Co., 101-103 Duane St., New York.

Driver-Harris Wire Co., Harrison, N. J.
Scovill Mfg. Co., Waterbury, Ct.
Spencer Wire Co., Worcester, Mass.

Wire, Nickel Plated—
Spencer Wire Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Wire, Railway Iron—
Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven, Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Wright Wire Co., Worcester, Mass.

Wire, Pail, Bail—
Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven, Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.

Wickwire Bros., Cortland, N. Y.
Wright Wire Co., Worcester, Mass.

Wire, Phosphor Bronze—
Bridgeport Brass Co., 253 Broadway, N. Y.

Cary Spring Works, 240-242 W. 29th St., New York.

Miller & Van Winkle, Brooklyn, N. Y.
Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Paul S. Reeves & Son, Philadelphia, Pa.
Riverside Metal Co., Riverside, N. J.

Arthur T. Rutter & Co., 256 Broadway, New York.

Spencer Wire Co., Worcester, Mass.

Wire, Piano—
Cary Spring Works, 240-242 W. 29th St., New York.

Alfred Field & Co., 93 Chambers St., New York.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven, Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.

Wire, Picture—
National Wire Corporation, New Haven, Ct.

Ossawau Mills Co., Norwich, Ct.

Parker Wire Goods Co., Worcester, Mass.
Spencer Wire Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

(See also Cord, Wire, Picture.)

Wire, Pin—
Bridgeport Brass Co., 253 B'way, N. Y.

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven, Ct.

Riverside Metal Co., Riverside, N. J.
Scovill Mfg. Co., Waterbury, Ct.

Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.
Waterbury Brass Co., Waterbury, Ct.

Wright Wire Co., Worcester, Mass.

Wire, Pinion—
Riverside Metal Co., Riverside, N. J.

Wire, Platinum—
Baker & Co., Inc., Newark, N. J.

J. Bishop & Co., Malvern, Pa.

Wire, Platinum Plated—
Ellwood Irvin Tube Works, Oak Lane Sta., Philadelphia, Pa.

Wire, Plow Steel—
Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven, Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.
Wright Wire Co., Worcester, Mass.

Wire, Pointing, Redrawing and Swaging, to order—
Wire Novelty Mfg. Co., West Haven, Ct.

Wire, Reed—

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven, Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.
Wright Wire Co., Worcester, Mass.

Wire Reinforcing Fabrics for Concrete—

Clinton Wire Cloth Co., Clinton, Mass.
Grand Crossing Tack Co., Grand Crossing, Ill.
Trenton Iron Co., Trenton, N. J.

Wire, Resistance—

Bridgeport Brass Co., 253 B'way, N. Y.
Driver-Harris Wire Co., Harrison, N. J.
National Wire Corporation, New Haven, Ct.

Riverside Metal Co., Riverside, N. J.
Arthur T. Rutter & Co., 256 Broadway, New York

Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.

Wire, Rivet—

Bridgeport Brass Co., 253 B'way, N. Y.
Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven, Ct.

Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.
Scovill Mfg. Co., Waterbury, Ct.

Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.
Waterbury Brass Co., Waterbury, Ct.

Wickwire Bros., Cortland, N. Y.
Wright Wire Co., Worcester, Mass.

Wire Rod Reels—

(See Reels, Wire Rod.)

Wire Rods—

(See Rods, Wire.)

Wire, Rope—

Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

George W. Prentiss & Co., Holyoke, Mass.
Riverside Metal Co., Riverside, N. J.

Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.
Wright Wire Co., Worcester, Mass.

Wire Rope Blocks and Shears—

(See Blocks, Shears.)

Wire Rope Clamps, Clips, &c.—

(See Clamps, Clips, &c.)

Wire, Round Tempered—

Cary Spring Works, 240-242 W. 25th St., New York.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.

Geo. Nash & Co., 24 S. Clinton St., Chicago, Ill.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.
Washburn Wire Co., Phillipsdale, R. I.

Wire, Sash Cord—

National Wire Corporation, New Haven, Ct.

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Trenton Iron Co., Trenton, N. J.
Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Screw—

Grand Crossing Tack Co., Grand Crossing, Ill.

Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven, Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.
Scovill Mfg. Co., Waterbury, Ct.

Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.

Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Wire, Screw Drive—

Grand Crossing Tack Co., Grand Crossing, Ill.

Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven, Ct.

Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.

Wire, Screw Eye—

Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.
National Wire Corporation, New Haven, Ct.

Scovill Mfg. Co., Waterbury, Ct.
Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.
Wire Goods Co., Worcester, Mass.

Wire, Screw Rod—

Grand Crossing Tack Co., Grand Crossing, Ill.

National Wire Corporation, New Haven, Ct.

Riverside Metal Co., Riverside, N. J.
Scovill Mfg. Co., Waterbury, Ct.

Spencer Wire Co., Worcester, Mass.
Trenton Iron Co., Trenton, N. J.

Wickwire Bros., Cortland, N. Y.

Wire Shapes, to Order—

Blake & Johnson, Waterbury, Ct.
Cleveland Wire Spring Co., Cleveland, O.

Geo. Q. Hill Co., Boston, Mass.
R. C. Jenkinson & Co., Newark, N. J.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.

Parker Wire Goods Co., Worcester, Mass.
Raymond Mfg. Co., Corry, Pa.

Arthur T. Rutter & Co., 256 Broadway, New York.

F. P. Smith & Co., Sharon Hill, Pa.
Spencer Wire Co., Worcester, Mass.

E. H. Titchener & Co., Binghamton, N. Y.

Trenton Iron Co., Trenton, N. J.
Wire Goods Co., Worcester, Mass.

Wire Novelty Mfg. Co., West Haven, Ct.

Wire, Ship Rigging—

National Wire Corporation, New Haven, Ct.

Wright Wire Co., Worcester, Mass.

Wire, Signal or Semaphore—

Grand Crossing Tack Co., Grand Crossing, Ill.

National Wire Corporation, New Haven, Ct.

Wire, Silver-Clad—
Duplex Metals Co., 208 Fifth Ave., N. Y.

Wire, Soft, Coppered, Bright and Annealed—

Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven, Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.

Wickwire Bros., Cortland, N. Y.

Wright Wire Co., Worcester, Mass.

Wire, Span—
Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven, Ct.

Wire, Special—
Bridgeport Brass Co., 253 B'way, N. Y.

Driver-Harris Wire Co., Harrison, N. J.

Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.

Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven, Ct.

Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.

Geo. W. Prentiss & Co., Holyoke, Mass.

Riverside Metal Co., Riverside, N. J.

Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire Splicing Pliers—
(See Pliers, Knot Tying and Splicing.)

Wire, Spooled—
Bridgeport Brass Co., 253 B'way, N. Y.

Driver-Harris Wire Co., Harrison, N. J.

National Wire Corporation, New Haven, Ct.

Ossawan Mills Co., Norwich, Ct.

Parker Wire Goods Co., Worcester, Pa.

Geo. W. Prentiss & Co., Holyoke, Mass.

Arthur T. Rutter & Co., 256 Broadway, New York.

Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.

Waterbury Brass Co., Waterbury, Ct.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Spring, Brass—
Bridgeport Brass Co., 253 Broadway, N. Y.

Miller & Van Winkle, Brooklyn, N. Y.

Scovill Mfg. Co., Waterbury, Ct.

Wire, Steel, Covered with Nickel—

Hermann Boker & Co., 101-103 Duane St., New York.

Morgan Spring Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Wire Stitching Machines—
R. H. Brown & Co., New Haven, Ct.

Wire, Straightened and Cut—

Adam's Steel & Wire Works, Joliet, Ill.

Blake & Johnson, Waterbury, Ct.

Bridgeport Brass Co., 253 B'way, N. Y.

Cary Spring Works, 240-242 W. 29th St., New York.

Cleveland Wire Spring Co., Cleveland, O.

Columbia Bridge Co., Pittsburgh, Pa.

Dillon-Griswold Wire Co., Sterling, Ill.

Garland Nut & Rivet Co., Pittsburgh, Pa.

Grand Crossing Tack Co., Grand Crossing, Ill.

R. C. Jenkinson & Co., Newark, N. J.

Kilbourne Mfg. Co., Troy, N. Y.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven, Ct.

Parker Wire Goods Co., Worcester, Mass.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.

Waterbury Brass Co., Waterbury, Ct.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Straightened and Cut, Brass—

Scovill Mfg. Co., Waterbury, Ct.

Wire, Straightening and Cutting Machines—
(See Straightening and Cutting Machines, Wire.)

Wire, Strand, Guy, Galvanized—

Broderick & Bascom Rope Co., St. Louis.

Grand Crossing Tack Co., Grand Crossing, Ill.

A. Leschen & Sons Rope Co., St. Louis.

National Wire Corporation, New Haven, Ct.

Trenton Iron Co., Trenton, N. J.

Washburn Wire Co., Phillipsdale, R. I.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Telephone and Telegraph, Bronze—

Bridgeport Brass Co., 253 Broadway, N. Y.

Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Wire, Telephone and Telegraph, Copper—

Bridgeport Brass Co., 253 Broadway, N. Y.

Wire, Telephone and Telegraph, Iron—

Dillon-Griswold Wire Co., Sterling, Ill.

National Wire Corporation, New Haven, Ct.

- Trenton Iron Co., Trenton, N. J.
 Washburn Wire Co., Phillipsdale, R. I.
Wire, Tempered, Cast Steel—
 Cary Spring Works, 240-242 W. 29th St., New York.
 Cleveland Wire Spring Co., Cleveland, O.
 Miller & Van Winkle, Brooklyn, N. Y.
 Morgan Spring Co., Worcester, Mass.
 National Wire Corporation, New Haven, Ct.
 Geo. W. Prentiss & Co., Holyoke, Mass.
 Spencer Wire Co., Worcester, Mass.
 Trenton Iron Co., Trenton, N. J.
 Washburn Wire Co., Phillipsdale, R. I.
 Wright Wire Co., Worcester, Mass.
Wire, Tinned—
 Bridgeport Brass Co., 253 B'way N. Y.
 Morgan Spring Co., Worcester, Mass.
 National Wire Corporation, New Haven, Ct.
 Spencer Wire Co., Worcester, Mass.
 Trenton Iron Co., Trenton, N. J.
 Washburn Wire Co., Phillipsdale, R. I.
 Wickwire Bros., Cortland, N. Y.
 Wright Wire Co., Worcester, Mass.
Wire, Tinned, Bronze—
 Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.
 Riverside Metal Co., Riverside, N. J.
Wire, Transom, Rod—
 Grand Crossing Tack Co., Grand Crossing, Ill.
 Morgan Spring Co., Worcester, Mass.
 National Wire Corporation, New Haven, Ct.
 Spencer Wire Co., Worcester, Mass.
 Trenton Iron Co., Trenton, N. J.
 Washburn Wire Co., Phillipsdale, R. I.
Wire Trays—
 (See Trays, Wire, Paper.)
Wire, Trolley, Copper—
 Bridgeport Brass Co., 253 Broadway, N. Y.
Wire, Umbrella—
 Morgan Spring Co., Worcester, Mass.
 National Wire Corporation, New Haven, Ct.
 Trenton Iron Co., Trenton, N. J.
 Washburn Wire Co., Phillipsdale, R. I.
Wire, Vestibule Rod—
 Grand Crossing Tack Co., Grand Crossing, Ill.
 Morgan Spring Co., Worcester, Mass.
 National Wire Corporation, New Haven, Ct.
 Spencer Wire Co., Worcester, Mass.
Wire, Watch—
 Cary Spring Works, 240-242 W. 29th St., New York.
 Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.
 Washburn Wire Co., Phillipsdale, R. I.
Wire Wax, for Core Vents—
 Alfred Field & Co., 93 Chambers St., New York.
Wire Weaving—
 Morgan Spring Co., Worcester, Mass.
 National Wire Corporation, New Haven, Ct.
 Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.
 Riverside Metal Co., Riverside, N. J.
 Arthur T. Rutter & Co., 256 Broadway, New York.
 Spencer Wire Co., Worcester, Mass.
 Trenton Iron Co., Trenton, N. J.
 Wickwire Bros., Cortland, N. Y.
 Wright Wire Co., Worcester, Mass.
- Wire Window Guards**—
 (See Guards, Wire Window.)
Wire, Wood Bit—
 Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.
 Morgan Spring Co., Worcester, Mass.
Wire Work, to order—
 Anchor Post Iron Works, 41 Park Row, New York.
 Baird Machine Co., Oakville, Ct.
 Blake & Johnson, Waterbury, Ct.
 M. S. Brooks & Sons, Chester, Ct.
 Buffalo Wire Works Co., Buffalo, N. Y.
 City Forge & Iron Works, Dayton, O.
 Clinton Wire Cloth Co., Clinton, Mass.
 Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
 Estey Wire Works Co., 59 Fulton St., New York.
 Forest City Steel & Iron Co., Cleveland, Ohio.
 Glen Mfg. Co., Ellwood City, Pa.
 Howard & Morse, 45 Fulton St., N. Y.
 R. C. Jenkinson & Co., Newark, N. J.
 Ludlow-Saylor Wire Co., St. Louis, Mo.
 Michigan Wire Cloth Co., Detroit, Mich.
 Parker Wire Goods Co., Worcester, Mass.
 Spencer Wire Co., Worcester, Mass.
 Van Dorn Iron Works Co., Cleveland, O.
 Wright Wire Co., Worcester, Mass.
Wires, Bond, Galvanized Iron—
 National Wire Corporation, New Haven, Ct.
 Wright Wire Co., Worcester, Mass.
Wires, Electrical (Magnet, Weatherproof, Office, Annunciator, Lamp Cord, Rubber and Paper Insulation, Lead Covered, Armored, &c.)—
 Bridgeport Brass Co., 253 B'way, N. Y.
 Driver-Harris Wire Co., Harrison, N. J.
 General Electric Co., Schenectady, N. Y.
 Hazard Mfg. Co., Wilkes-Barre, Pa.
 Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
 Pittsburgh Reduction Co., Pittsburgh, Pa.
 Plume & Atwood Mfg. Co., Waterbury, Ct.
 Riverside Metal Co., Riverside, N. J.
 Arthur T. Rutter & Co., 256 Broadway, New York.
 Scovill Mfg. Co., Waterbury, Ct.
 Washburn Wire Co., Phillipsdale, R. I.
 Waterbury Brass Co., Waterbury, Ct.
 Waterbury Co., 69 South St., N. Y.
 Wright Wire Co., Worcester, Mass.
Wires, Threaded—
 Atlas Bolt & Screw Co., Cleveland, O.
 Blake & Johnson, Waterbury, Ct.
 Geo. O. Hill Co., Boston, Mass.
 R. C. Jenkinson & Co., Newark, N. J.
 Ohio Nut & Bolt Co., Berea, O.
 Parker Wire Goods Co., Worcester, Mass.
 Progressive Mfg. Co., Torrington, Ct.
 Arthur T. Rutter & Co., 256 Broadway, New York.
 Scovill Mfg. Co., Waterbury, Ct.
 Spencer Wire Co., Worcester, Mass.
 Wire Goods Co., Worcester, Mass.
Wood Burning Sets—
 (See Pyrographic Outfit.)
Wood Faucets, &c.—
 (See Faucets.)
Wood Sawing Machines—
 (See Sawing Machines, Wood.)

Wood Saws—

(See Saw Mills, Circular.)

Wood Turners' Tools—

(See Tools, Wood Turners.)

Wood Working Machines—

Badger State Machine Co., Janesville, Wis.

Bicknell Mfg. & Supply Co., Janesville, Wis.

Coburn Machine Tool Co., Franklin, Pa.

Crescent Machine Co., Leetonia, O.

Defiance Machine Works, Defiance, O.

Fox Machine Co., Grand Rapids, Mich.

Peter Gerlach Co., Cleveland, O.

Greaves, Klusman & Co., Cincinnati, O.

Greenlee Bros. & Co., Rockford, Ill.

Hobbs Mfg. Co., Worcester, Mass.

Humphrey Machine Co., Keene, N. H.

Ingersoll-Rand Co., 11 Broadway, N. Y.

Lane Mfg. Co., Montpelier, Vt.

J. M. Marston & Co., Boston, Mass.

Oliver Machinery Co., Grand Rapids, Mich.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Wickes Bros., Saginaw, Mich.

Williams, White & Co., Moline, Ill.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.

Columbus Equipment Co., Columbus, O.

Fairbanks Co., 416 Broome St., New York.

Hill, Clarke & Co., Boston, Mass.

A. V. Kaiser & Co., 222 S. Third St., Philadelphia, Pa.

H. A. Rogers Co., 19 John St., N. Y.

Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.

L. F. Seyfert's Sons, 437-441 Third St., Philadelphia, Pa.

Frank Toomey, 127-131 N. Third St., Philadelphia, Pa.

Vandey, Churchill Co., 8 Dey St., N. Y.

C. C. Wormer Machinery Co., Detroit, Mich.

Wood Working Machines.

Foot and Hand Power—

Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Wooden Mallets, Scoops.

Shovels—

(See Mallets, Scoops, Shovels.)

Wooden Specialties—

Baker, McMillen & Co., Akron, O.

E. B. Estes & Sons, 45-47 John St., N. Y.

John Sommer's Son, Newark, N. J.

Wooden Ware—

(See Ware, Wooden.)

Woods, Ball—

Baker, McMillen Co., Akron, O.

E. B. Estes & Sons, 45-47 John St., N. Y.

Woods, Electric—

(See Electric Woods.)

Woods, Skate—

(See Skate Woods.)

Workers, Shutter—

Mallory Mfg. Co., Flemington, N. J.

Working Heads—

(See Heads, Working.)

Worm Gearing—

(See Gearing, Worm.)

Wreaths—

(See Architectural Sheet Metal Work.)

Wreckers, House—

Chicago House Wrecking Co., 35th & Iron Sts., Chicago, Ill.

Henry A. Hitner's Sons, cor. Huntingdon & Aramingo Aves., Philadelphia, Pa.

Wrench Attachments, Pipe—

Billings & Spencer Co., Hartford, Ct.

Prentiss Vise Co., 44 Barclay St., New York.

Quincy, Manchester, Sargent Co., Old Colony Bldg., Chicago, Ill.

L. S. Starrett Co., Athol, Mass.

Wrenches, Adjustable Pipe—

Whitman & Barnes Mfg. Co., Chicago,

Wrenches, Adjustable S—

Bemis & Call Hardware & Tool Co., Springfield, Mass.

Billings & Spencer Co., Hartford, Ct.

Fairbanks Co., 416 Broome St., New York.

Keystone Mfg. Co., Buffalo, N. Y.

Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.

Wrenches, Adjustable S

Pipe—

Bemis & Call Hardware & Tool Co., Springfield, Mass.

Fairbanks Co., 416 Broome St., New York.

Keystone Mfg. Co., Buffalo, N. Y.

Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.

Wrenches, Agricultural

Machinery—

Kilborn & Bishop Co., New Haven, Ct.

Wrenches, Automobile—

Kilborn & Bishop Co., New Haven, Ct.

Wrenches, Bicycle and

Pocket—

Athol Machine Co., Athol, Mass.

Barnes Tool Co., New Haven, Ct.

Billings & Spencer Co., Hartford, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Crosby Co., Buffalo, N. Y.

John H. Graham & Co., 113 Chambers St., New York.

Sam'l Hall's Sons, 229-233 W. 10th St., New York.

C. E. Jennings & Co., 42 Murray St., New York.

Frank Mossberg Co., Attleboro, Mass.

Mossberg Wrench Co., Central Falls, R. I.

Patterson, Gottfried & Hunter, 146-150 Centre St., New York.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Smith & Egge Mfg. Co., Bridgeport, Ct.

Sturges & Burn Mfg. Co., Chicago, Ill.

Tower & Lyon Co., 95 Chambers St., N. Y.

Whitman & Barnes Mfg. Co., Chicago,

J. H. Williams & Co., Brooklyn, N. Y.

Wrenches, Brace—

Fairbanks Co., 416 Broome St., New York.

Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.

E. F. Reece Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Wrenches, Brass and Nickel

Pipe—

Belden Machine Co., New Haven, Ct.

Wrenches, Carriage and

Wagon—

Goodell Co., Antrim, N. H.

Fairbanks Co., 416 Broome St., New York.

Millers Falls Co., 28 Warren St., N. Y.

Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.

Tower & Lyon Co., 95 Chambers St., New York.

Wells Bros. Co., Greenfield, Mass.

Walter W. Woodruff & Sons Co., Mt. Carmel, Ct.

Wrenches, Chain—

Fairbanks Co., 416 Broome St., New York.
 Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.
 Trimont Mfg. Co., Roxbury, Mass.
 J. H. Williams & Co., Brooklyn, N. Y.

Wrenches, Chuck—

Billings & Spencer Co., Hartford, Ct.

Wrenches, Combination—

Bemis & Call Hardware & Tool Co., Springfield, Mass.
 Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
 Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Fairbanks Co., 416 Broome St., New York.
 Kilborn & Bishop Co., New Haven, Ct.
 Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.
 Tower & Lyon Co., 95 Chambers St., New York.
 Whitman & Barnes Mfg. Co., Chicago.

Wrenches, Construction—

Indianapolis Drop Forging Co., Indianapolis, Ind.

Wrenches, Drop Forged—

Billings & Spencer Co., Hartford, Ct.
 Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.
 R. H. Brown & Co., New Haven, Ct.
 Richard Eccles Co., Auburn, N. Y.
 Fairbanks Co., 416 Broome St., New York.
 Indianapolis Drop Forging Co., Indianapolis, Ind.
 Keystone Drop Forge Works, Chester, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 Wm. G. Le Count, So. Norwalk, Ct.
 Patterson, Gottfried & Hunter, 146-150 Centre St., New York.

Rhode Island Tool Co., Providence, R. I.
 Richmond Forgings Corporation, Richmond, Va.

Smith & Hemenway Co., 108-110 Duane St., New York.

Transue & Williams Co., Alliance, O.
 Vaughan & Bushnell Mfg. Co., Chicago.
 Whitman & Barnes Mfg. Co., Chicago.
 J. H. Williams & Co., Brooklyn, N. Y.

Wrenches, Pipe—

Billings & Spencer Co., Hartford, Ct.

Wrenches, Pin—

Barnes Tool Co., New Haven, Ct.
 Bemis & Call Hardware & Tool Co., Springfield, Mass.

Billings & Spencer Co., Hartford, Ct.
 C. E. Bonner Mfg. Co., Chrisman, Ill.
 Bullard Automatic Wrench Co., Providence, R. I.

Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Richard Dudgeon, 21-26 Columbia St., New York.

Fairbanks Co., 416 Broome St., New York.
 Hollands Mfg. Co., Erie, Pa.
 Indianapolis Drop Forging Co., Indianapolis, Ind.

Keystone Drop Forge Works, Chester, Pa.
 Keystone Mfg. Co., Buffalo, N. Y.
 Kilborn & Bishop Co., New Haven, Ct.
 Frank Mossberg Co., Attleboro, Mass.

Page-Storms Drop Forge Co., Brightwood, Mass.

Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.
 P. Saunders Sons, Yonkers, N. Y.

Tower & Lyon Co., 95 Chambers St., New York.

Transue & Williams Co., Alliance, O.
 Trimont Mfg. Co., Roxbury, Mass.
 Vaughan & Bushnell Mfg. Co., Chicago.
 Walworth Mfg. Co., Boston, Mass.
 Whitman & Barnes Mfg. Co., Chicago.
 J. H. Williams & Co., Brooklyn, N. Y.

Wrenches, Quick Acting—

Bay State Tool Co., Worcester, Mass.
 Bonney Vise & Tool Works, 3011-3015 Chestnut St., Philadelphia, Pa.

Wrenches, Ratchet—

Bay State Tool Co., Worcester, Mass.
 Bullard Automatic Wrench Co., Providence, R. I.
 Patterson, Gottfried & Hunter, 146-150 Centre St., New York.
 Vandergrift Plumbing & Heating Co., Willimantic, Ct.
 Wells Bros. Co., Greenfield, Mass.

Wrenches, Reamer—

(See Wrenches, Tap and Reamer.)

Wrenches, S—

Billings & Spencer Co., Hartford, Ct.
 Edward S. Hotchkiss, Bridgeport, Ct.
 Kilborn & Bishop Co., New Haven, Ct.

**Wrenches, Screw Mechan-
ics', Agricultural, &c.—**

Athol Machine Co., Athol, Mass.
 Bemis & Call Hardware & Tool Co., Springfield, Mass.

Billings & Spencer Co., Hartford, Ct.
 Coew Wrench Co., Worcester, Mass.
 Fairbanks Co., 416 Broome St., New York.
 Helwig Mfg. Co., St. Paul, Minn.
 Indianapolis Drop Forging Co., Indianapolis, Ind.

Frank Mossberg Co., Attleboro, Mass.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Smith & Edge Mfg. Co., Bridgeport, Ct.
 Smith & Hemenway Co., 108-110 Duane St., New York.

Tower & Lyon Co., 95 Chambers St., New York.

Transue & Williams Co., Alliance, O.
 Trimont Mfg. Co., Roxbury, Mass.
 Vandergrift Mfg. Co., Shelbyville, Ind.
 Whitman & Barnes Mfg. Co., Chicago, Ill.

Wrenches, Set Screw—

Indianapolis Drop Forging Co., Indianapolis, Ind.
 Page-Storms Drop Forge Co., Brightwood, Mass.

Wrenches, Socket—

Fairbanks Co., 416 Broome St., New York.
 Indianapolis Drop Forging Co., Indianapolis, Ind.

Keystone Mfg. Co., Buffalo, N. Y.
 Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.

Smith & Edge Mfg. Co., Bridgeport, Ct.
 J. H. Williams & Co., Brooklyn, N. Y.

Wrenches, Spanner—

Keystone Drop Forge Works, Chester, Pa.

Lunkenheimer Co., Cincinnati, O.
 Patterson, Gottfried & Hunter, 146-150 Centre St., New York.

Wrenches, Spanner, Adjustable—
 Billings & Spencer Co., Hartford, Ct.

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Wrenches, Stamped Steel—

W. & S. Mfg. Co., Worcester, Mass.

Wrenches, Tap and Reamer—

Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.

Butterfield & Co., Derby Line, Vt.

J. M. Carpenter Tap & Die Co., Pawtucket, R. I.

Fairbanks Co., 416 Broome St., New York.

Hart Mfg. Co., Cleveland, O.

Keystone Mfg. Co., Buffalo, N. Y.

Massachusetts Tool Co., Greenfield, Mass.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Patterson, Gottfried & Hunter, Ltd., 146-150 Centre St., New York.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

Standard Tool Co., Cleveland, O.

L. S. Starrett Co., Athol, Mass.

Walworth Mfg. Co., Boston, Mass.

Wells Bros. Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Wrenches, Tool Post—

Billings & Spencer Co., Hartford, Ct.

Indianapolis Drop Forging Co., Indianapolis, Ind.

Page-Storms Drop Forge Co., Brightwood, Mass.

Whitman & Barnes Mfg. Co., Chicago.

Wrenches, Track—

Indianapolis Drop Forging Co., Indianapolis, Ind.

Keystone Drop Forge Works, Chester, Pa.

Page-Storms Drop Forge Co., Brightwood, Mass.

Solid Steel Tool & Forge Co., Tarentum, Pa.

Vaughan & Bushnell Mfg. Co., Chicago.

Wrenches, Trap—

Oneida Community, Kenwood, N. Y.

Walworth Mfg. Co., Boston, Mass.

Wringer Rolls—

(See Tubes, Wringer Roll.)

Wringers, Clothes—

National Sweeper Co., Marion, Ind.

North Bros. Mfg. Co., Philadelphia, Pa.

Wringers, Mop and Bucket, Combined—

Dana Mfg. Co., Cincinnati, O.

Eagle Cooperage Works, Circleville, O.

Wringers, Power—

Geo. F. Clark Co., Windsor Locks, Ct.

Wrought Iron Goods, Hooks, Staples, &c.—

Griffin Mfg. Co., Erie, Pa.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Lawrence Bros., Sterling, Ill.

McKinney Mfg. Co., Allegheny, Pa.

National Mfg. Co., Sterling, Ill.

Ney Mfg. Co., Canton, O.

Stanley Works, New Britain, Ct.

W. & J. Tiebout, 118 Chambers St., New York.

Wire Goods Co., Worcester, Mass.

Wrought Steel Butts, Sinks, &c.—

(See Sinks, Butts, &c.)

Wrought Washers—

(See Washers, Wrought.)

Yacht Hardware—

A. S. Morris Co., Boston, Mass.

W. & J. Tiebout, 118 Chambers St., N. Y.

Yard Measures, Steel—

Brown & Sharpe Mfg. Co., Providence, R. I.

Yard Sticks—

Chapin-Stephens Co., Pine Meadow, Ct.

E. B. Estes & Sons, 45-47 John St., N. Y.

Stanley Rule & Level Co., New Britain, Ct.

Upon Nut Co., Cleveland, O.

Yarn—

(See Warps and Yarn.)

Yarn, Lath—

American Mfg. Co., 65 Wall St., N. Y.

New York Cordage Co., 83-85 Wall St., New York.

Plymouth Cordage Co., North Plymouth, Mass.

Yarns, Spun and Tarred—

American Mfg. Co., 65 Wall St., N. Y.

Broderick & Bascom Rope Co., St. Louis.

Plymouth Cordage Co., North Plymouth, Mass.

Waterbury Co., 69 South St., N. Y.

Yellow Ocher—

(See Ocher, Yellow.)

Yokes, Neck, Trimmed—

Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

Yokes, Ox—

American Fork & Hoe Co., Cleveland, O.

Yokes, Steel Neck—

Youngstown Iron & Steel Roofing Co., Youngstown, O.

Zees—

Carnegie Steel Co., Pittsburgh, Pa.

Zinc—

Empire Metal Co., Syracuse, N. Y.

Pittsburgh White Metal Co., Pittsburgh.

Zinc Battery Plates—

(See Battery Plates, Rolled Zinc.)

Zinc, Chloride—

Sandoval Zinc Co., 122 N. Peoria St., Chicago, Ill.

Zinc, Dry or in Oil—

New Castle Paint & Varnish Co., New Castle, Pa.

Zinc for Leclanche Batteries—

Illinois Zinc Co., Peru, Ill.

Matthiessen & Hegeler Zinc Co., La Salle, Ill.

W. R. Ostrander & Co., 22 Dey St., N. Y.

Sandoval Zinc Co., 122 N. Peoria St., Chicago, Ill.

Zinc Oxide—

Sandoval Zinc Co., 122 N. Peoria St., Chicago, Ill.

Zinc, Perforated Sheet—

Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.

Chas. Mundt & Sons, 441-447 Pearl St., New York.

Zinc, Sheet—

Illinois Zinc Co., Peru, Ill.

Matthiessen & Hegeler Zinc Co., La Salle, Ill.

Sandoval Zinc Co., 122 N. Peoria St., Chicago, Ill.

N. & G. Taylor Co., Chestnut and 3d Sts., Philadelphia, Pa.

MERCHANTS.
Arthur C. Harvey Co., Boston, Mass.
Merchant & Evans Co., Philadelphia, Pa.
Waite, Ranlet & Co., Boston, Mass.
Zinc Tubing— (See Tubing.)

